

AC.4765

COUNTY BOROUGH OF CORK

REPORT OF THE
MEDICAL OFFICER
OF HEALTH

FOR THE YEAR

1944

•



COUNTY BOROUGH OF CORK



REPORT OF THE MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1944

J. C. SAUNDERS, M.D., D.P.H..
Medical Officer of Health.

CORK :
Eagle Printing Works Limited, 90 South Mall,
1945.

*To the Lord Mayor, Aldermen and Councillors,
of the County Borough of Cork.*

MY LORD MAYOR AND GENTLEMEN,

I present herewith my Annual Report for 1944. The past year has, in many respects, reflected the conditions brought about by the war. The death rate has increased from 16.5 for 1943 to 18.1, the tuberculosis death rate from 1.69 to 1.92. The increases have not been confined to this area, but have been generally experienced in the country. On the other hand, there was a slight reduction in infant mortality and a reduction in the infectious diseases death rate. The number of cases and the deaths from diphtheria were substantially reduced.

The Register of Population of 1941 shewed a considerable falling off in the population of this area and the registration of 1943 revealed a further diminution, so that our population now stands at roughly 5,000 less than it was at the Census of 1941. The effect of this change on the age and sex constitution is shewn in Table I.

During the year many samples of cereal foods were found to be infested with cereal mites. It is believed that the deterioration was brought about by undue holding in the hope of a rise in price. Most of the samples were found to be badly affected and quite unfit for human food. This was grave enough in the case of foods intended for adults, such as pancake flour, pearl barley, etc., but much worse was the case of a so-called infant "food" which was very heavily infested. The circumstances of this case call for serious consideration and it is apparent that a much more stringent code is required for the proper control of foodstuffs. In the case in question it is difficult to escape the conclusion that it was simply an attempt to profit by the shortage of supplies and that there was a complete disregard for the possible consequences. In marketing an infant's food more than ordinary care is required.

It would seem that scabies is now on the decline. The number of cases reported is considerably less than it has been and there has been a corresponding reduction in the attendances at the Treatment Centre. There are still, however, many existing cases which we know of and in which, unfortunately, it seems impossible to secure the attendance of the patients.

The high standard of purity of the water supply was maintained during the year.

I remain,

Your obedient servant,

J. C. SAUNDERS.

PUBLIC HEALTH STAFF

Medical Officer of Health :

J. C. Saunders, M.D., D.P.H.

Assistant Medical Officer of Health :

Patrick F. Fitzpatrick, M.B., B.Ch., B.A.O., D.P.H.

School Medical Officer :

Annie M. Sullivan, M.B., B.Ch., B.A.O., D.P.H.

School Dentist :

Mr. R. F. Twomey, B.D.S.

Public Analyst :

Daniel J. O'Sullivan, M.Sc., F.I.C.

Chief Veterinary Officer :

S. R. J. Cussen, D.V.S.M., M.R.C.V.S.

Assistant Veterinary Officer :

J. C. Brown, M.R.C.V.S.

Sanitary Inspectors :

John O'Brien

Timothy Newman

Thomas F. Murray

Daniel Murphy

James V. Nerney

Leo. J. Woodnutt

Miss N. Dunn

Tuberculosis Nurse:

Miss L. Lyndon.

Maternity and Child Welfare Nurses :

Miss M. Gillespie

Miss H. Neville

Miss H. A. Crowley

School Nurses :

Miss M. Lordan

Miss M. O'Sullivan

Miss N. Dillon

School Dental Nurse :

Miss M. Bowen.

Clerk and Inspector to Port Sanitary Authority :

J. P. Kieran

CONTENTS.

SECTIONS :

	Page
I.—Vital Statistics	1
II.—Infectious Diseases	13
III.—Tuberculosis	34
IV.—Maternity and Child Welfare	57
V.—Control of Food Supplies	78
VI.—Water Supply	97
VII.—Sanitary Department	100
VIII.—Housing	103
IX.—Port Sanitary Administration	106
X.—Meteorology	112

APPENDICES :

I.—Venereal Disease	114
II.—Welfare of the Blind	117
III.—Physical Features of Area	121

SUMMARY OF STATISTICS.

Area (in Acres)	2,618
Population (Register of Population 1941)	75,484
Density of Population (persons to the acre)	28.9
Rateable Value	£237,276 14 0
Sum represented by a Penny Rate	£988
Number of Births	1,721
Birth Rate	22.8
Number of Deaths	1,365*
Death Rate	18.1
Maternal Mortality Rate	4.0
Infantile Mortality	108
Zymotic Death Rate	0.6

*Includes 15 deaths over and above corresponding figure in body of report. These represent transfers to area by Registrar General of which we have no particulars.

Section I.—Vital Statistics.

1.—Population.

The Register of Population compiled in the year 1941 revealed a very substantial reduction in the population of this City as compared with the Census of Population taken in 1936. The reduction amounted to a round figure of 4,000 and was discussed in the report for the year in question which drew attention to the fact that this change did not appear to have been paralleled by any other urban area in the country. There had in fact been very substantial accretions to the population status of such places. It was most marked in the city of Dublin which registered an increase of over 21,000, while Limerick and Waterford showed increases of 1,400 and 500 respectively. A further estimation of the population was undertaken in 1943 (in connection with rationing of supplies) from which it transpires that the population of Cork City has undergone a further substantial reduction, as compared with 1941. The population during the various years of census-taking was as follows :—

1881	...	...	...	80,124
1891	...	...	...	75,345
1901	...	...	...	76,122
1911	...	...	...	76,673
1926	...	...	...	78,464
1936	...	...	...	80,765
1941	...	...	...	76,830
1943	...	...	...	75,484

It will be noted that since 1936 the population has been reduced by over 5,000. In my report for 1931 I stressed the importance of analysing the figures for this reduction with a view to determining the age and sex groups particularly involved. Such figures have an important bearing on the interpretation of statistical data, especially in relation to death-rates. Mortality is particularly heavy among very young children and the rate falls with increasing age to a minimum at ages about 10 to 15 years. From this period it begins to rise steadily until about 45 when there is a rapidly steepening increase which reaches its maximum at ages over 85 years. This tendency is well exemplified in the following table which represents death-rates in England and Wales in 1935 for each of 12 age groups.

Age	Deaths per 1000
0—5	17.9
5—10	2.1
10—15	1.3
15—20	2.1
20—25	2.9
25—35	3.1
35—45	5.0
45—55	10.8
55—65	23.2
65—75	55.5
75—85	131.8
85—	269.2
All Ages	11.7

From this it is apparent that if in a given community there is a relative preponderance at both ends of the scale the death-rates will compare unfavourably with areas in which there are larger proportions among the adolescent and young adult age-groups. Such death rates would be quite erroneous as indicators of the relative healthiness of the communities under observation. If, for instance we compare the death-rate of an institution for boys with that of a home for old persons, it is obvious that the death-rate in the latter will greatly exceed the former even though the environment and care of the inmates is equally good in both cases. The difference is, in fact, due entirely to the difference in the age-constitution of the two communities. For this reason it is not possible to draw any reliable conclusion as to the relative healthiness of different places from a consideration of their recorded death-rates alone. It is necessary also to compare the composition of the age-groups in the places concerned. In my 1941 Report I adverted to the fact that there was every reason to believe that the reduction of 4,000 in our population had been largely made up of young men and women who would be included in the groups from 20 to 25 years. This assumption was largely based on the recognised migration of young men from the area which had been going on for the previous two years. At that time the Register of Population had not been sub-divided into age and sex groups so that precise information on this point was lacking. Since then the desired figures have become available and through the courtesy of the Director of Statistics, Department of Industry and Commerce I have been enabled to compile the following table (Table I) which shews the variations in the various age and sex groups between the census year 1936 and the compilation of 1941. (The relevant figures for 1943 are not yet available).

Table 1.—Cork City.—Population classified by age-groups for each sex, arranged according to Census Return, 1936 and Register of Population, 1941.

AGE GROUP	MALES			FEMALES			TOTALS		
	1936	1941	Var'tion	1936	1941	Var'tion	1936	1941	Var'tion
Under 1	820	757	— 63	888	778	—110	1,708	1,535	—173
1 Year	809	751	— 58	814	681	—133	1,023	1,432	—191
2 Years	770	805	+ 35	768	749	— 19	1,538	1,544	+ 16
3 „	798	757	— 41	811	720	— 91	1,609	1,477	—132
4 „	785	734	— 51	794	775	— 19	1,579	1,509	— 70
5-9 „	3,721	3,516	—205	3,653	3,693	+ 40	7,374	7,209	—165
10-14 „	3,872	3,588	—284	3,574	3,422	—152	7,446	7,010	—436
15-19 „	3,352	3,388	+ 36	3,717	3,697	— 20	7,069	7,085	+ 16
20-24 „	3,434	2,763	—671	4,159	3,772	—387	7,593	6,535	—1,058
25-29 „	3,122	2,369	—753	3,763	3,612	—151	6,885	5,981	—904
30-34 „	2,723	2,407	—316	2,977	3,111	+134	5,700	5,518	—182
35-39 „	2,567	2,157	—410	2,898	2,846	— 52	5,465	5,003	—462
40-44 „	2,138	1,954	—184	2,360	2,553	+193	4,498	4,507	+ 9
45-49 „	1,973	1,756	—217	2,340	2,143	—197	4,313	3,899	—414
50-54 „	1,907	1,635	—272	2,168	2,061	—107	4,075	3,696	—379
55-59 „	1,725	1,557	—168	1,852	1,883	+ 31	3,577	3,440	—137
60-64 „	1,408	1,410	+ 2	1,649	1,760	+111	3,057	3,170	+113
65-69 „	1,142	1,174	+ 32	1,210	1,371	+161	2,352	2,545	+193
70-74 „	688	853	+165	1,132	1,229	+ 97	1,820	2,082	+262
75-79 „	372	395	+ 23	615	637	+ 22	987	1,032	+ 45
80-84 „	113	152	+ 39	237	295	+ 58	350	447	+ 97
85-89 „	37	38	+ 1	74	91	+ 17	111	129	+ 18
90-94 „	9	5	—4	24	20	— 4	33	25	— 8
95-99 „	1	2	+ 1	2	8	+ 6	3	10	+ 7
Over 100	—	2	+ 2	—	2	+ 2	—	4	+ 4
Totals ...	38,286	34,925	—3,361	42,479	41,909	—570	80,765	76,834	—3,931

It emerges from this table that (1) the total reduction of 3,931 in the population has been made up of 3,361 males and 570 females; (2) all age groups from birth to 55 years shew reductions (with the exception of 15/20 in which there has been a quite insignificant increase; (3) the most marked reduction was in the group 20/40 which accounts for 2,508 of the total; (4) reductions were noted also in groups up to 55 years (except in group 40/44 in which there was an insignificant increase). The total decrease in this group (20/55) amounts to 3,401 of which 2,823 represents males and 578 females; (5) there has been a surprising reduction in the younger age-groups which was most marked in the 10/15 group (i.e. the group which ordinarily yields the lowest death rate). From 3 to 15 years the total reduction has amounted to 803, of which 436 occurred in the 10/15 group; adding this figure (803) for the 3/15 group to the figure above for 20/55 group (3,401) we get a total reduction in the population for the most vigorous years of life of 4,204. This has been compensated to a certain extent by increases in the higher age groups. All ages from 60 years to 100 and over show appreciable increases.

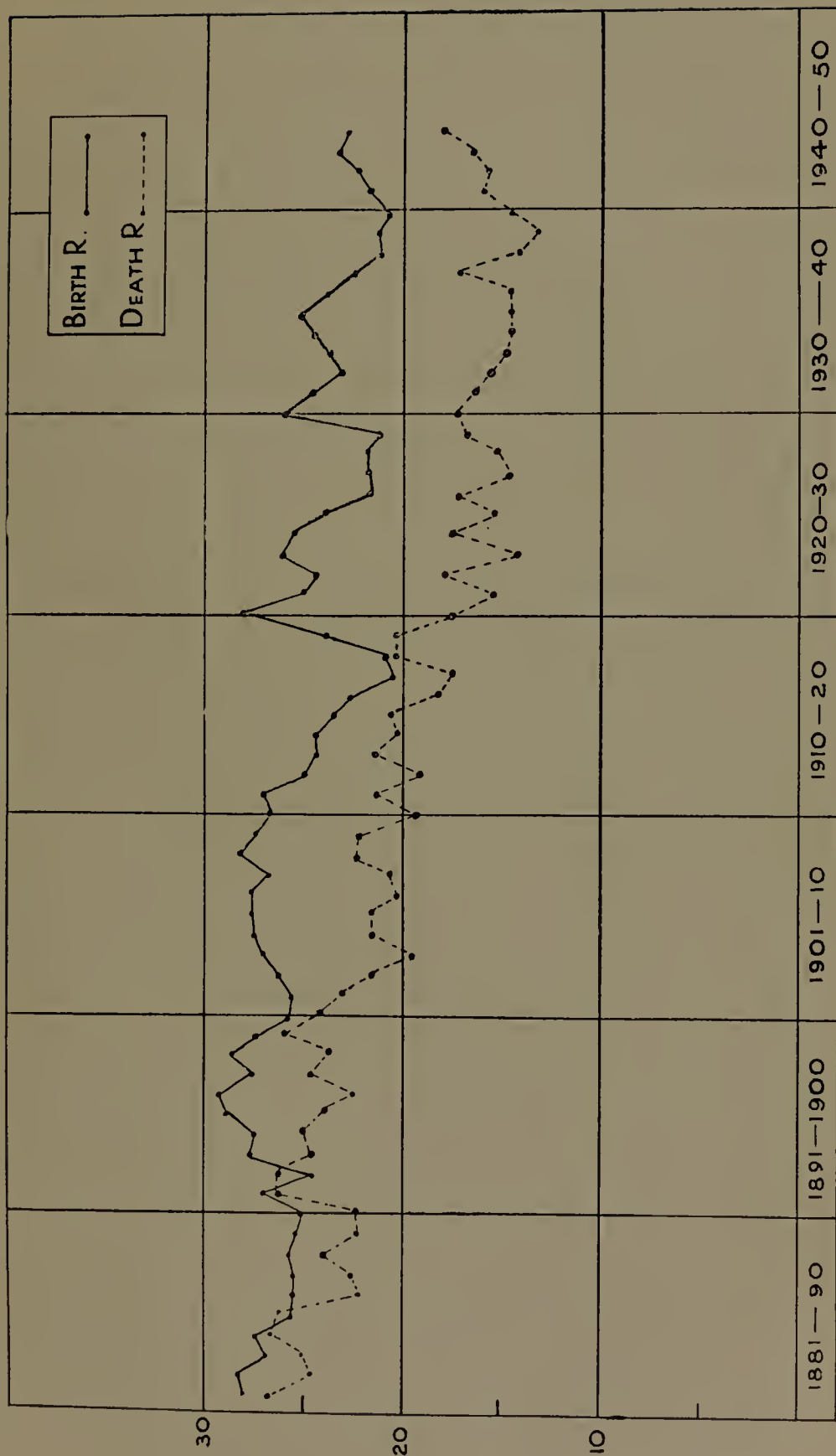
In effect the age groups yielding low death rates have been substantially decreased while these which yield high rates have been increased and the result has been a death-rate which appears to compare unfavourably with those of areas which have not been affected to the same extent by movement of populations. In 1943 the death-rate for Dublin was 14.40, Limerick 14.09, Waterford 16.45 while that of Cork was 16.61. It is not possible to adduce figures for each of these three areas comparable to these which have been worked out for Cork, nevertheless those which are available (from the Register of Population, 1941) are of some interest. The population of Dublin showed a total increase of 21,173 over that of the previous census year (1936) of which no less than 17,716 comprised females. There is no reason to doubt that this increase was very largely composed of young adults migrating inwards from rural area. In Limerick there was an increase of 1,461 and the returns revealed that the number of females had increased by 1,585 while the males decreased by 124. Similarly, in Waterford, there was an increase of 604 females and a decrease of 91 in the males, yielding a total increase of 513. So that while Cork City was being depleted of a very substantial portion of its more vigorous age groups it would seem that these very age groups in the other urban areas were being increased. It is probable that these changes in the age constitution of the different areas would account for the differences in the death rates. The circumstantial evidence, certainly, is very strong and it would be of much interest if the standardised death-rates for the four county boroughs could be worked out. In the provisional returns of the Registrar General the death-rate for Cork for 1944 compares even more unfavourably than those given above, in the meantime (as already mentioned) the population has undergone a further definite depletion and there is no reason to doubt that the same age-groups have been most affected, so that if any really trustworthy inferences are to be drawn the importance of standardisation becomes even more apparent.

2.—Births.

According to the Annual Summary of the Registrar General 1,712 births were *registered* in Cork during the past year (this figure is subject to correction). The number of births *notified* to the Local Authority (in accordance with the provisions of the Notification of Births Acts) was 1,721. In addition to the latter figure 33 still-births were notified, bringing the total of *notified* births to 1,754. On the basis of the Registrar General's figure the birth-rate for the year was 22.8. The general trend of the birth-rate is seen in the following table.

1881-90	...	...	...	26.2
1891-1900	...	...	...	27.2
1901-10	...	...	...	26.0
1911-20	...	...	...	24.7
1921-30	...	...	...	23.5
1931-40	...	...	...	22.6
1941	...	...	...	21.8
1942	...	...	...	22.2
1943	...	...	...	23.2
1944	...	...	...	22.8

FIG. 1—BIRTH AND DEATH RATES COMPARED 1881 TO PRESENT YEAR.



Examination of the notifications as to place of birth shewed that 1,041 took place in the mothers' homes the balance having occurred in various institutions and private hospitals.

The number of illegitimate births notified during the year was 37, representing 2.15 per cent. of the total notified births. The corresponding figures for the previous year were 21 births being 1.40 per cent. of the total registered births.

Table 2.—Birth Rates for Cork City and Éire from 1881.

Year	Cork	Éire	Year	Cork	Éire
1881	27.7	24.0	1913	24.2	22.6
1882	28.2	23.8	1914	24.3	22.3
1883	27.0	23.4	1915	23.2	22.0
1884	27.4	23.5	1916	22.6	21.1
1885	25.6	23.1	1917	20.2	20.0
1886	25.4	22.7	1918	20.8	19.9
1887	25.5	22.5	1919	23.8	19.9
1888	25.7	22.1	1920	28.3	21.6
1889	25.2	22.0			
1890	25.0	21.6	1921	24.6	19.7
			1922	24.2	19.5
1891	26.9	22.3	1923	26.2	20.5
1892	24.6	21.7	1924	25.5	21.0
1893	27.8	22.1	1925	23.8	20.8
1894	27.4	22.1	1926	21.5	20.6
1895	28.9	22.3	1927	21.7	20.3
1896	29.2	22.7	1928	21.7	20.1
1897	27.5	22.5	1929	20.9	19.8
1898	28.7	22.3	1930	25.4	19.9
1899	27.3	22.1			
1900	25.8	21.8	1931	24.4	19.4
			1932	23.0	19.0
1901	25.6	21.8	1933	23.7	19.3
1902	26.2	22.2	1934	24.4	19.5
1903	27.1	22.1	1935	24.8	19.6
1904	27.4	22.7	1936	23.7	19.6
1905	27.6	22.6	1937	22.3	19.1
1906	27.5	22.8	1938	21.1	19.4
1907	25.6	22.4	1939	21.1	19.1
1908	27.3	22.7	1940	20.7	19.1
1909	26.3	22.9			
1910	25.8	22.8	1941	21.8	18.9
			1942	22.2	22.0
1911	26.0	22.8	1943	23.2	21.8
1912	24.8	22.7	1944	22.48	22.0*

* From *Annual Summary* of Register General.

3.—Deaths.

1,365 deaths have been assigned to this area in the Annual Summary of the Registrar General for 1944. This is equivalent to a crude death rate of 18.1 per 1,000 of the population. The figures for 1943 were 1,270 deaths and the rate 16.5 per 1,000. There is some discrepancy between our figures collected locally (shewn in Table 5) and those of the Registrar General. This discrepancy has persisted in successive

years and has been alluded to in previous reports. According to our figures the number of deaths was 1,350 (compared with 1,243 for 1943). Presumably this difference is explained by the deaths (in other localities) of persons whose normal place of residence was Cork, and of which deaths we would not have been aware. In actual practice the differences which have become apparent between our figures and those of the Registrar General are of such a degree as not to be of statistical significance and since the information to be obtained from our age-grouping is slightly more detailed than that of the Registrar General, a comparison has been made in the following table of the number of deaths in each age-group as recorded from locally collected statistics for the years 1943 and 1944.

Table 3—Deaths according to age-groups

Age Group	1943	1944	Difference
0-1 years	197	187	— 10
1-5 „	47	80	+ 33
5-15 „	28	19	— 9
15-25 „	42	35	— 7
25-35 „	46	56	+ 10
35-45 „	75	68	— 7
45-55 „	99	114	+ 15
55-65 „	213	194	— 19
65-75 „	305	349	+ 44
75-85 „	167	214	+ 47
85 Upwards	24	34	+ 10
Males	581	693	+ 112
Females	662	657	— 5
TOTAL	1243	1350	+ 107

In the main the increase in deaths has been most marked in the later age groups (in contradistinction to 1943), when it was mainly in the group under 1 year. Another feature which contrasts with the return for last year is the increased number of deaths of males and the decrease in female deaths. For the previous period the position was reversed. Pulmonary tuberculosis accounts for 5 of the increase in 10 deaths in the 25/35 group over those of last year. Heart disease is the principal cause of the increase in the 45/55 group, as it is also in the 65/75 group.

Table 4 sets out the death rates per 1,000 persons living in Cork City, Eire and in England and Wales during the period 1881 to 1943. These figures do not necessarily represent the relative healthiness of the communities concerned since they are based on crude death rates. In order to compare such conditions the figures would have to be based on standardised death-rates. The general trend of the death-rate is, however, indicated by this table.

Table 4.—Crude Death Rates per 1,000 living for Cork City, Eire and England and Wales, 1881–1934.

Year	Cork	Éire	E. & W.	Year	Cork	Éire	E. & W.
1881	26.8	17.1	18.9	1913	21.5	16.8	13.8
1882	24.7	16.9	19.6	1914	20.2	16.1	14.0
1883	24.9	18.6	19.6	1915	20.7	17.5	15.7
1884	26.7	17.4	19.7	1916	18.2	16.5	14.3
1885	26.2	18.0	19.2	1917	17.4	16.9	14.2
1886	22.1	17.4	19.5	1918	20.4	17.5	17.3
1887	22.4	17.9	19.1	1919	20.2	17.9	14.0
1888	24.1	17.4	18.1	1920	17.5	14.7	12.4
1889	22.3	16.9	18.2	1921	15.4	14.3	12.1
1890	22.2	17.6	19.5				
				1922	18.0	14.7	12.8
1891	26.9	17.6	20.2	1923	14.0	14.0	11.6
1892	26.4	18.7	19.0	1924	17.8	15.0	12.2
1893	24.5	17.3	19.2	1925	15.5	14.7	12.2
1894	24.9	17.7	16.6	1926	17.3	14.0	11.6
1895	23.9	17.7	18.7	1927	14.7	14.8	12.3
1896	22.6	15.9	17.1	1928	15.2	14.2	11.7
1897	24.7	17.8	17.4	1929	16.9	14.6	13.4
1898	23.7	17.7	17.5	1930	17.3	14.1	11.4
1899	26.3	17.0	18.2	1931	16.4	14.5	12.3
1900	24.2	19.1	18.2				
				1932	15.7	14.4	12.0
1901	23.0	17.1	16.9	1933	14.9	13.6	12.3
1902	21.5	17.0	16.3	1934	14.7	12.9	11.8
1903	19.4	17.0	15.5	1935	14.8	13.9	11.7
1904	21.6	17.6	16.3	1936	14.7	14.3	12.1
1905	21.7	16.4	15.3	1937	17.4	15.3	12.4
1906	20.2	16.2	15.5	1938	14.1	13.6	11.6
1907	20.6	17.0	15.1	1939	13.1	14.2	12.1
1908	22.2	17.1	14.8	1940	14.6	14.1	14.0
1909	22.1	16.8	14.6				
1910	19.3	16.6	13.5	1941	16.1	14.6	12.9
				1942	15.9	14.0	11.6
1911	21.2	16.3	14.6	1943	16.5	14.7	—
1912	19.1	16.2	13.4	1944	18.1	15.4	—

Table 5, which is based on Abstract V. of the Registrar-General's Annual Report, is an analysis of the causes of death during the year 1942. It differs from Abstract V. in this respect that the age-groups are more extended and that the causes of death have been sub-divided in some instances. For example, under the headings "other forms of tuberculosis" and "other defined diseases" the various causes of death are more fully set out. This has been made possible by the system of weekly collection of deaths from the district Registrar's registers and the card-index system of filing which has been adopted in connection with it. This table is compiled from the weekly returns collected by us from the local Registrars and the totals do not correspond with those of the Registrar-General in his Summary, which are not fully corrected. The number of deaths in this table amounts to 1,350 (as compared with 1,365 in the Summary) so that the error is but slight and probably due to deaths in other places which have been allocated by the Registrar-General to this area. Once again I have to acknowledge the assistance received from the Registrar-General in the compilation of these figures.

Table 5.—Analysis of Causes of Death at different age-periods during the year 1944.

Causes of Death	TOTAL	Sex		Un 1 yr.	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and up
		M.	F.											
Measles ...	6	5	1	2	4	—	—	—	—	—	—	—	—	—
Whooping Cough ...	28	12	16	13	14	1	—	—	—	—	—	—	—	—
Diphtheria ...	5	4	1	1	3	1	—	—	—	—	—	—	—	—
Influenza ...	4	2	2	—	2	—	—	—	—	2	—	—	—	—
C. S. Meningitis ...	2	1	1	1	1	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	118	61	57	1	1	1	24	30	24	15	15	7	—	—
Other Tuberculosis Diseases :—														
(a) Meningitis ...	11	5	6	1	6	3	—	—	—	1	—	—	—	—
(b) Abdominal ...	3	—	3	2	1	—	—	—	—	—	—	—	—	—
(c) Bone and Joint ...	7	2	5	—	1	1	1	—	—	—	2	1	1	—
(d) Other Forms ...	6	3	3	1	2	1	—	—	1	1	—	—	—	—
Cancer ...	123	70	53	1	—	—	2	4	11	19	32	41	13	—
Diabetes ...	5	2	3	—	—	—	—	1	—	—	2	1	1	—
Cerebral Haemorrhage ...	75	31	44	—	—	—	1	—	2	8	13	33	16	2
Heart Disease ...	390	181	209	—	1	1	3	5	13	35	63	155	99	15
Arterio-Sclerosis ...	23	8	15	—	—	—	—	—	—	—	7	6	10	—
Bronchitis ...	82	57	25	3	1	—	—	1	2	8	14	33	18	2
Pneumonia :—														
(a) Broncho ...	44	25	19	16	21	1	—	1	—	—	4	1	—	—
(b) Lobar ...	23	14	9	2	1	—	—	1	3	—	6	8	1	1
Other Respiratory Diseases ...	21	14	7	—	—	2	—	1	3	2	6	4	3	—
Gastric and Duodenal Ulcer ...	12	8	4	—	—	—	—	1	—	3	1	6	1	—
Diarrhoea and Enteritis ...	65	35	30	62	3	—	—	—	—	—	—	—	—	—
Appendicitis ...	4	3	1	—	1	2	—	—	—	1	—	—	—	—
Nephritis ...	26	19	7	—	—	1	2	1	—	3	6	9	4	—
Puerperal Sepsis ...	2	—	2	—	—	—	—	2	—	—	—	—	—	—
Other Puerperal Causes	6	—	6	—	—	—	1	3	1	1	—	—	—	—
Congenital Debility and Premature Birth ...	46	25	22	47	—	—	—	—	—	—	—	—	—	—
Violent Deaths ...	29	18	11	2	4	—	—	1	3	3	2	10	2	2
Other Defined Causes :														
(1) Gastro-Intestinal ...	17	6	11	—	3	1	—	1	1	—	3	4	4	—
(2) Convulsions ...	9	6	3	7	2	—	—	—	—	—	—	—	—	—
(3) Central Nervous System ...	10	5	5	—	—	—	—	2	1	—	4	2	1	—
(4) Anaemia and Blood Diseases ...	7	2	5	—	—	—	—	—	1	1	—	5	—	—
(5) Genito-Urinary ...	11	10	1	—	—	—	—	—	—	2	4	4	1	—
(6) Marasmus ...	14	9	5	12	2	—	—	—	—	—	—	—	—	—
(7) Rheumatic Diseases ...	13	3	10	—	—	—	1	—	1	1	3	5	2	—
(8) Hepatic Diseases ...	3	1	2	—	1	—	—	—	—	—	—	1	1	—
(9) Septicaemia ...	9	3	6	2	1	—	—	—	—	2	1	3	—	—
(10) Gangrene ...	3	1	2	—	—	—	—	—	—	—	—	2	1	—
(11) Senile Decay ...	49	19	30	—	—	—	—	—	—	—	—	5	33	11
(12) Syphilis (Congenital) ...	6	4	2	6	—	—	—	—	—	—	—	—	—	—
(13) Meningitis ...	5	3	2	2	2	1	—	—	—	—	—	—	—	—
(14) Miscellaneous ...	24	13	11	4	2	2	—	1	1	5	5	3	—	1
Ill-Defined or Unknown Causes ...	4	3	—	—	—	—	—	—	1	1	—	2	—	—
Totals ...	1351	693	658	188	81	18	35	56	68	114	194	349	214	34

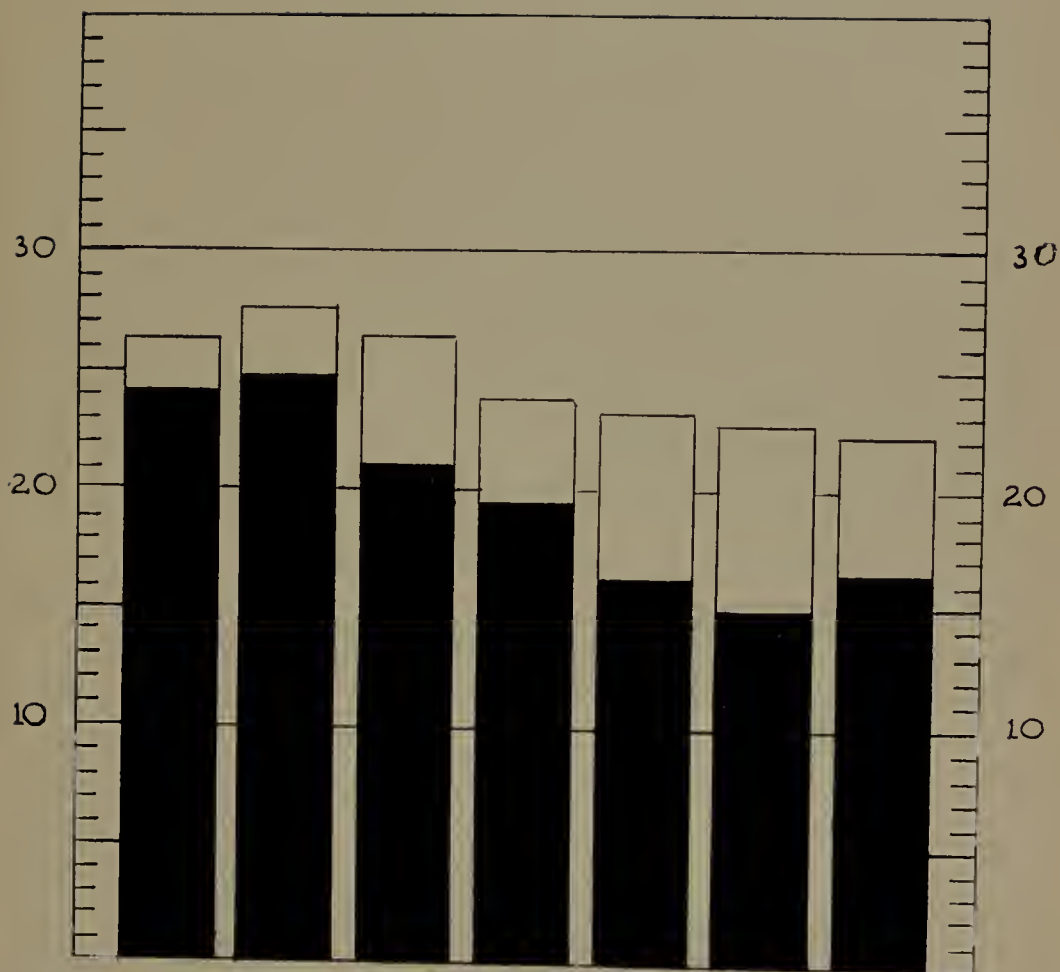


FIG. II.—BIRTH AND DEATH RATES AS DECENNIAL AVERAGES FROM 1881 TO PRESENT YEAR.

The lower (black) portion of each column represents the death rates, the total height of column the birth rates.

The principal causes of death (in order of importance) were as follows :—

1. Heart Disease	...	390	(349)
2. Cancer	...	123	(120)
3. Pulmonary Tuberculosis		118	(107)
4. Bronchitis	...	82	(69)
5. Cerebral Haemorrhage		73	(76)
6. Diarrhoea and Enteritis		63	(52)
7. Senile Decay	...	49	(50)
8. Premature Birth	...	47	(71)
9. Broncho-pneumonia	...	44	(36)
10. Violence	...	29	(23)
11. Nephritis	...	26	(19)
12. Lobar Pneumonia	...	23	(23)

The figures in parenthesis denote the corresponding number in 1942.

Cardiac Disease. As usual this condition accounts for the great bulk of the deaths. Stress has been laid on deaths from heart disease and allusion made to the fact that the majority of them are found to be recorded in the later age-groups which gives rise to the supposition that they represent a degenerative condition rather than an infective one. This feature has been reproduced this year as shewn in the following table.

Table 6.—Analysis of deaths from heart disease from 1931.

Year	Under 5 years	5/15 years	15/25 years	25/35 years	35/45 years	45/55 years	55/65 years	65/75 years	75 yrs and up	Total
1931	—	6	3	5	18	31	66	87	34	250
1932	—	6	2	9	17	39	50	99	36	258
1933	—	2	4	5	15	31	58	83	42	240
1934	1	3	4	5	20	17	66	103	39	258
1935	2	3	1	7	11	29	63	93	36	245
1936	4	3	3	7	6	32	64	98	48	265
1937	—	5	6	9	16	24	72	112	64	308
1938	1	2	2	2	12	35	67	106	76	304
1939	—	1	4	2	12	27	63	108	61	278
1940	2	—	5	4	12	21	66	109	74	293
1941	—	3	2	6	12	22	82	108	71	306
1942	1	1	1	5	11	25	74	131	60	317
1943	—	1	7	4	16	28	81	133	79	349
1944	1	1	3	5	13	35	63	155	114	390

The general trend of deaths from heart disease is shewn in the following table in which a comparison is made with deaths from cancer and pulmonary tuberculosis. It will be noted that there was quite a substantial increase in the number as compared with the previous year.

Table 7.—Trend of mortality from the three principal causes of death in Cork City from 1931.

Year	Condition		
	Heart Disease	Cancer	Pulmonary Tuberculosis
1931	250	124	103
1932	258	98	111
1933	240	114	106
1934	258	111	107
1935	245	133	115
1936	265	121	85
1937	308	117	96
1938	304	106	99
1939	278	143	86
1940	293	114	96
1941	306	125	88
1942	317	149	106
1943	349	120	107
1944	390	123	118

Cancer. The number of deaths attributable to this disease recorded by us was 123 as compared with 120 in 1943. The corresponding figures of the Registrar-General are 112 (uncorrected) and 116. The discrepancy observable here, no doubt, is due to a difference in classification, all forms of malignant disease being classed by us under this heading. For comparative purposes the Registrar-General's are the more correct figures. On the basis of 112 deaths the rate was 1.4 per 1,000 of the population.

Phthisis Death Rate. The deaths from pulmonary tuberculosis numbered 118 equivalent to a rate of 1.5 per 1,000 of the population. The corresponding figures for last year were 107 and 1.4 per 1,000 respectively. The figures for the years from 1911 onwards are set out in Section IV.

Infant Mortality. The number of deaths of children under one year of age was 188 which is equivalent to a rate of 108 per 1,000 live births. In 1943 the number of deaths was 202 and the rate 113 per 1,000. The contributory factors are discussed in Section V.

Maternal Mortality. There were 8 deaths from causes under this heading during the year. The maternal mortality rate was 4.0.

Infectious Disease Death Rate. The number of deaths from the principal infectious diseases was 45 equivalent to 0.6 per 1,000 of the population.

Table 8.—Deaths registered during the year 1944, for the County Borough of Cork by Registrars' Districts, with the infant mortality per 1,000 Births. 10a

REGISTRAR'S DISTRICTS, &c.				INFANT MOR- TALITY PER 1,000 BIRTHS	DEATHS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					TOTAL DEATHS	AGES AT DEATH								DEATHS FROM										Influenza.	Cancer	Diseases of Respiratory System		Violence	Other Causes.	Inquest Cases.	In Public Institutions	Number of Uncert- ified Deaths.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
						Under 1 year	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Principal Epidemic Diseases						Tuber- culosis		Pneumonia.	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
														Typhoid fever Typhus, Small pox, Dysentery	Scarlet fever.	Whooping cough.	Diphtheria.	Measles	Diarrhoea and Enteritis (under 2 years).	Pulmonary	Other Forms.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
CITY OF CORK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

* This figure does not agree with corresponding figure in preceding tables. The discrepancy is due to the fact that some of the deaths, though occurring in 1943, were not registered until 1944. Such deaths would have been included in last year's report.

Table 10.—Showing the number of deaths from the principal epidemic diseases during the past ten years.

Year	Small Pox	Typhus Fever	Typhoid Fever	Scarlatina	Puerperal Fever	Membranous Group	Diphtheria	Measles	Diarrhoea	Whooping Cough
1934	—	—	—	2	5	—	25	11	36	16
1935	—	—	—	—	1	—	7	7	58	1
1936	—	—	—	7	1	—	8	10	41	5
1937	—	—	—	10	—	—	17	—	52	12
1938	—	—	1*	3	—	—	7	—	33	3
1939	—	—	—	1	1	—	3	—	39	6
1941	—	—	—	1	—	—	5	21	52	—
1940	—	—	—	—	—	—	5	6	36	—
1942	—	—	—	—	—	—	21	—	52	2
1943	—	—	—	—	1	—	17	—	52	4
1944	—	—	—	—	2	—	5	6	65	28

* Infection in this case was incurred outside the City area.

Uncertified Deaths. Eleven uncertified deaths were recorded during the year as compared with eight in 1941.

Deaths from Violence. In the 29 recorded instances the cause of death was as follows:—

Falls	...	...	12
Drowning	...	...	4
Suicide	...	...	2
Motor Car Accidents	...	...	1
Burns and Scalds	...	...	4
Railway Accidents	...	...	3
Infanticide	...	...	1
Miscellaneous	...	...	2

Table 11.—INFANT DEATH RATE.

Year	Births	Deaths under 1 year	Deaths per 1000 Births	Year	Births	Deaths under 1 year	Deaths per 1000 Births
1881	2167	271	124	1913	1853	253	136
1882	2212	283	127	1914	1897	226	119
1883	2161	236	109	1915	1778	235	132
1884	2199	253	110	1916	1732	182	105
1885	2054	247	120	1917	1552	169	108
1886	2037	225	110	1918	1559	189	118
1887	2042	252	123	1919	1825	183	100
1888	2058	288	139	1920	2169	173	79
1889	2023	253	125	1921	1887	144	76
1890	2005	214	106	1922	1853	173	93
1891	2024	281	138	1923	2007	133	66
1892	1978	297	150	1924	1990	175	87
1893	2092	268	132	1925	1827	136	74
1894	2063	310	150	1926	1687	220	130
1895	2179	287	131	1927	1701	148	87
1896	2144	229	106	1928	1764	135	76
1897	2073	316	152	1929	1816	156	85
1898	2160	285	131	1930	1998	155	77
1899	2060	276	133	1931	1921	138	71
1900	1944	235	120	1932	1819	168	89
1901	1942	272	139	1933	1852	165	89
1902	2031	258	127	1934	1922	139	72
1903	2066	232	112	1935	1945	162	83
1904	2089	249	118	1936	1921	154	80
1905	2099	276	131	1937	1818	187	103
1906	2094	279	133	1938	1708	129	76
1907	1946	254	139	1939	1711	125	73
1908	2084	281	134	1940	1670	153	92
1909	2000	251	125	1941	1680	142	85
1910	1965	189	96	1942	1706	171	100
1911	1992	277	139	1943	1781	197	113
1912	1903	204	107	1944	1721	188	108

Section. II.—Infectious Diseases

The following diseases are compulsorily notifiable in this area :—

Small Pox	Acute Influenzal Pneumonia
Cholera	Malaria
Typhus	Dysentery
Typhoid (Enteric Fever)	Encephalitis Lethargica
Simple Continued Fever	Cerebro Spinal Fever
Scarlatina	Poliomyelitis
Puerperal Fever	Ophthalmia Neonatorum
Diphtheria	Pemphigus Neonatorum
Membranous Croup	Puerperal Pyrexia
Erysipelas	Trachoma
Measles	Undulant Fever
Diarrhoea	Whooping Cough
Acute Primary Pneumonia	

The last six diseases were made notifiable by the Public Health (Infectious Diseases) Regulations 1941.

The Infectious Disease (Notification) Act, 1889, was by a resolution of the Corporation, dated 7th February, 1890, adopted in the County Borough.

The Act was subsequently made to apply to the following diseases :—

Name of Disease			Date of Resolution making Act applicable	Period in force
Cerebro-Spinal Meningitis	...	...	13 July, 1900	Till 31st December, 1900
do.	...	...	22 February, 1907	Till revoked
Measles	...	...	26 May, 1905	do.
Diarrhoea	...	...	14 December, 1906	1 July, 1907, to 31 Oct., 1907
do.	...	...	12 February, 1909	1 July, 1909, until revoked
Poliomyelitis or Infantile Paralysis	...	...	10 November, 1916	Till revoked

The Infectious Disease (Prevention) Act, 1890, was, by a resolution of the Corporation, dated 11th March, 1892, adopted and put into force in the County Borough.

The Public Health Acts Amendment Acts, 1907, was adopted and put into force by a resolution dated the 24th January, 1908, save as regards Sections 21, 24 to 33, 48, 66, 78 to 86, and 91 to 95.

The Public Health (Ireland) (Pneumonia, Malaria, Dysentery, etc.) Regulations, 1919 were revoked and are replaced by The "Public Health (Infectious Diseases) Regulations, 1929." Trench Fever, which was included in the 1919 Regulations, has been withdrawn in the new order.

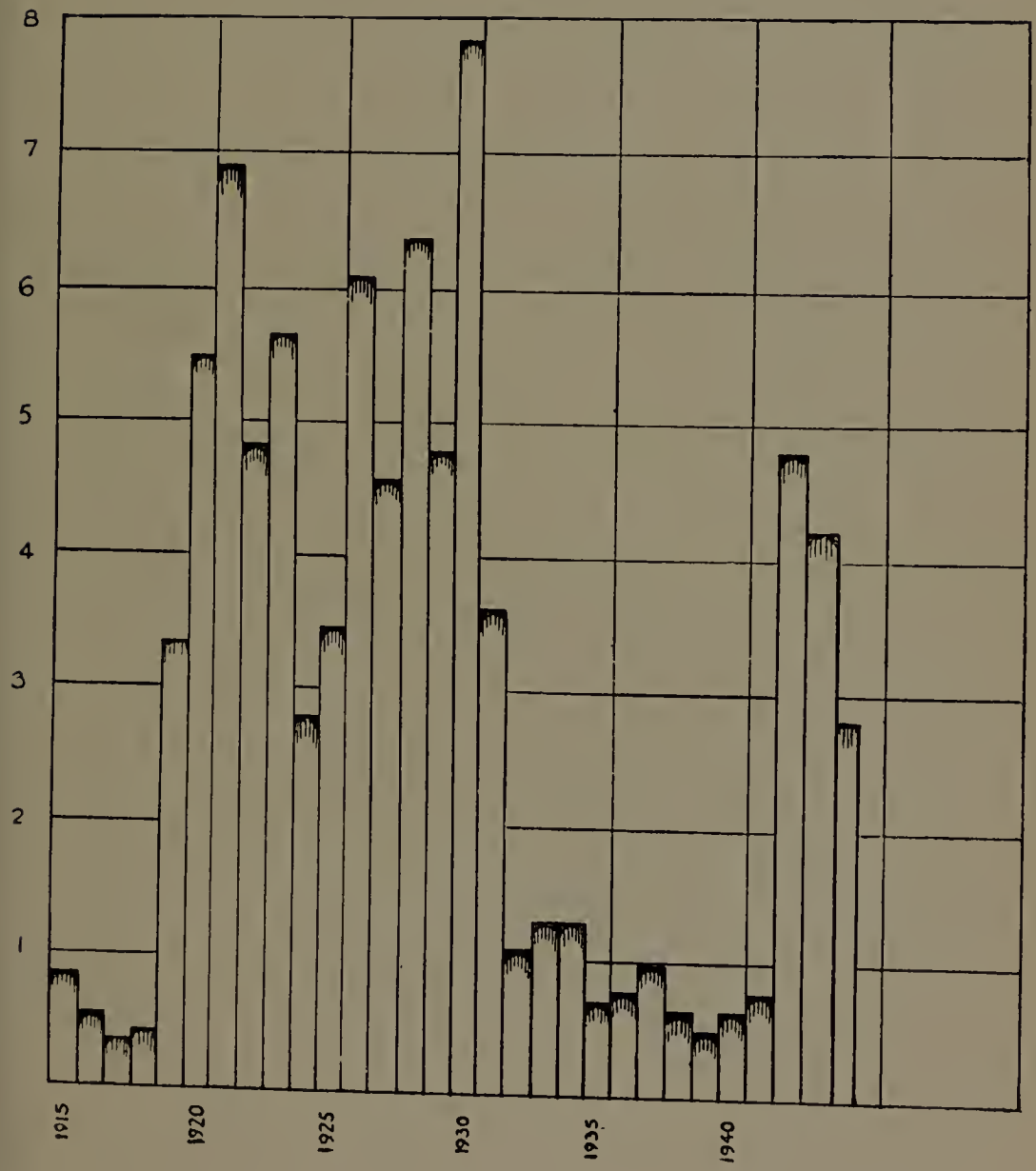
The Emergency Powers (No. 46) Order, 1940 still remains in force. The provisions of this Order were fully reported on in the 1941 report.

3,023 notifications were received during the year as compared with 1,291 in the previous year. The principal contributory factors were (in order of importance) Scabies 1,899 cases, Measles 370, Whooping Cough 219, Diarrhoea 179, Diphtheria 172.

DIPHTHERIA.

Although there was a substantial reduction in the number of notified cases, the incidence of this disease continues altogether too high. 172 cases were recorded (as compared with 326 in the previous year and 372 in 1942). Considering the means at our disposal for combating diphtheria these figures are a stigma on our records. There was also a considerable reduction in the number of deaths, the total number was 5 (the corresponding figure in 1943 was 17 and in 1942, 21). In no instance had any of the victims received immunising treatment. Since 1929, the year in which immunisation against diphtheria was commenced in Cork, the toll of deaths has mounted to 261. During this period of 16 years over 24,000 children were treated and it is a matter of considerable satisfaction to be able to continue to record that *of this substantial total of immunised children there has not been a single death from diphtheria*. We cannot congratulate ourselves on the record of attendances at the immunisation clinic during the past year. Reference to the tables which follow shews that there was a considerable falling off, a feature which has been noted repeatedly in the past as occurring whenever the epidemic incidence of the disease became lowered. This is indeed a very unsatisfactory state of affairs though, to a certain extent, understandable. In effect it means that parents will not trouble to have their children protected until they find themselves faced with immediate danger. In 1942 there were 372 cases of diphtheria, with 21 deaths and during that year over 3,700 children received protective treatment. This epidemic continued into 1943 and 326 cases were recorded (mostly in the earlier part of the year) with 17 deaths, the disease exhibiting signs of abating that year the attendances fell to just over 1,000 while during the past year (1944) they dwindled to 654. It is most regrettable to have to place these facts on record for it is merely a question of time until we experience another recrudescence of the disease which will inevitably be accompanied by a high mortality. It is to be noted that the fatality-rate for the past year was 2.9 per 1,000, an exceptionally low figure for this area as will be evident from an examination of table 13, having been bettered only on three occasions in the course of 55 years. Ordinarily the fatality rate has been excessively high and it is apparent that diphtheria here has assumed a very severe form, the prevalent type of the bacillus has been very virulent and, altogether, it is not an exaggeration to say that this city has suffered more from diphtheria in the past than any other comparable area. It would be altogether unjustifiable to assume that the disease was now

FIG. III.—DIPHTHERIA INCIDENCE (PER 1000 POPULATION FROM 1915).



taking on a milder form since experience has taught us that in its rise to epidemic proportions it is invariably accompanied by increased virulence. This makes it all the more important that parents and guardians should adopt precautionary measures now to meet the dangers which the future has in store.

In the following table age-incidence and deaths from diphtheria are analysed. In former reports attention was drawn to the shift towards the older years which had occurred, this feature is now more marked than ever. In 1943 the proportion of cases in 15/25 group amounted to 18 per cent., in 1944 the corresponding figure was 35 per cent. In the 25 years and over group the proportion was 9 per cent. in 1943, while in 1944 it had increased to 16 per cent. This tendency has been manifest for some time past and now seems to have become a permanent feature of the disease.

Table 12.—Analysis of cases and deaths.

Age Groups	CASES		DEATHS
	Number	Proportion of Total	Number
0-2 years	6	3.49 per cent.	1
2-4 „	11	6.40 „	3
4-6 „	17	9.88 „	0
6-8 „	16	9.30 „	0
8-10 „	14	8.14 „	1
10-15 „	20	11.63 „	0
15-25 „	60	34.88 „	0
25 & over	28	16.23 „	0
Total ...	172	100 per cent.	5

The incidence (per 1,000 of population) and the case-fatality rates of diphtheria from 1890 to the present year are set out in Table 13.

In a proportion of cases the reports received transpired not to be diphtheria. The actual number was 98 (approximately 30 per cent. of all notifications received). The age distribution of these was as follows :—

0-2 years	...	...	10 cases
2-4 „	...	...	10 „
4-6 „	...	...	15 „
6-8 „	...	...	5 „
8-10 „	...	...	13 „
10-15 „	...	...	21 „
15-20 „	...	...	26 „
Over 20 „	...	...	30 „
Total	...	...	130

Table 13.—Incidence and Case Fatality of Diphtheria from 1890.

Year	Cases	Rate per 1000 Population	Deaths	Fatality Rate
1890	20	0.26	8	40.00
1891	37	0.49	11	29.97
1892	11	0.14	3	27.27
1893	18	0.23	3	16.66
1894	14	0.18	4	28.57
1895	6	0.07	2	33.33
1896	7	0.09	1	14.28
1897	21	0.27	10	47.61
1898	18	0.23	4	22.22
1899	18	0.23	5	27.77
1900	23	0.30	2	0.86
1901	26	0.34	11	42.30
1902	8	0.10	4	50.00
1903	17	0.22	4	17.53
1904	29	0.38	6	20.60
1905	18	0.23	6	33.33
1906	37	0.48	11	29.73
1907	37	0.48	5	13.51
1908	40	0.56	9	22.50
1909	66	0.86	11	16.66
1910	51	0.65	11	19.29
1911	70	0.91	10	14.28
1912	52	0.67	6	11.54
1913	24	0.31	3	12.50
1914	54	0.70	13	24.07
1915	68	0.88	14	20.59
1916	43	0.55	9	20.93
1917	26	0.33	3	11.53
1918	34	0.43	6	17.64
1919	262	3.37	32	12.21
1920	428	5.50	60	14.02
1921	541	6.93	56	10.37
1922	379	4.86	42	11.08
1923	440	5.68	23	5.18
1924	217	2.85	12	5.40
1925	265	3.50	6	2.19
1926	469	6.10	18	3.75
1927	344	4.55	9	2.52
1928	385	6.37	19	4.75
1929	369	4.81	32	8.46
1930	627	7.86	59	10.00
1931	288	3.66	24	8.61
1932	85	1.08	17	20.00
1933	109	1.32	14	12.83
1934	109	1.32	25	22.10
1935	56	0.71	7	12.50
1936	25	0.31	8	32.00
1937	80	0.99	17	21.20
1938	54	0.66	7	12.77
1939	41	0.50	3	7.40
1940	52	0.67	5	9.61
1941	62	0.80	5	8.06
1942	372	4.84	21	5.64
1943	326	4.25	17	5.21
1944	172	2.27	5	2.9

Note :—The Infectious Disease (Notification) Act, 1889, was adopted on 7th February, 1890.

DIPHTHERIA IMMUNISATION.

The total number of children who completed the full course of treatment during the year was 734, of whom 80 were children who were negative to the primary Schick test. There was a very marked falling off in attendances as compared with 1943.

Table 14.—Attendance at Diphtheria Prevention Clinic.

Year	Primary Schick Negative	Completed Full Course	Total	Not Completed Course
1929	—	1,802	1,802	—
1930	154	2,857	3,011	505*
1931	324	1,777	2,101	436
1932	91	422	513	208
1933	159	592	751	61
1934	826	1,716	2,542	432
1935	173	1,118	1,291	8
1936	458	1,741	2,199	22
1937	165	960	1,125	212
1938	106	708	814	205
1939	87	355	442	69
1940	87	552	639	90
1941	109	576	685	60
1942	367	3,795	4,162	891
1943	306	1,081	1,387	321
1944	80	654	734	99
Totals	3,492	20,706	24,198	3,619

* Includes figures for *both* 1929 and 1930.

The figures for primary Schick tests in this table do not represent the *total* number of such tests performed but merely the number that proved *negative*. They are stated here for the purpose of estimating the number of children who have passed through our hands and who may be regarded as presumably immune. The number of primary tests has been reduced to a minimum. It is now confined to children over ten years. The great bulk of our cases is now under this age, so that the necessity for the primary test is comparatively rare.

Table 15.—Primary Schick Tests performed during 1943.

Age Group	Number of Cases	Positive	Negative	Proportion Positive
0-5 years	1	1	0	—
5-10 „	25	3	22	12.0 %
10 and over	82	24	58	29.2 %
Totals ...	108	28	80	25.9 %

Table 16.—Primary Schick Tests. Analysis showing proportion positive in each year.

Year	Number Tested	Positive	Negative	Proportion Positive
1929-30	1170	916	254	78.2 per cent.
1931	598	274	324	45.8 "
1932	301	210	91	69.7 "
1933	435	276	159	63.4 "
1934	1474	648	826	44.0 "
1935	309	136	173	44.0 "
1936	626	168	458	26.8 "
1937	266	101	165	38.0 "
1938	152	46	106	30.2 "
1939	110	23	87	20.9 "
1940	131	34	87	25.9 "
1941	146	37	109	25.3 "
1942	686	319	367	46.5 "
1943	306	107	199	34.9 "
1944	108	28	80	25.9 "

Apart from record purposes this table is of little value as, obviously, the proportion of *positive* reactions will depend almost entirely on the age constitution of the groups of children tested and as this factor will fluctuate widely from year to year, so also will the results vary from one year to another. In this respect the next table is much more informative as the results in the different years have been analysed in accordance with the age groups of the children.

Table 17.—Primary Schick Tests. Analysis of proportion positive each year in different age groups.

Age Group	Proportion POSITIVE (expressed as percentages)														
	1929-30	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
0-5 years	—	—	88.4	79.7	65.8	66.6	66.6	—	—	50.0	25.0	—	25.0	83.0	—
5-10 "	—	—	60.1	63.3	44.2	49.5	41.5	43.8	25.0	28.6	20.4	30.9	45.2	28.0	12.0
10 and over	—	—	37.7	28.9	27.5	30.3	15.5	33.0	35.7	18.4	32.9	22.2	47.6	34.8	29.2
Whole Group	78.2	45.8	69.6	63.4	44.0	44.0	25.2	37.9	30.2	20.9	25.9	25.3	46.5	34.9	25.9

Owing to the smallness in the number of cases tested, no results can be adduced for the figures for the year 1937 to date.

The total number of cases dealt with, according to age-groups is shewn in the following figures.

(1) Treatment Incomplete—

0-5 years	...	...	65
5-10 years	...	...	30
10 and over	...	...	4
			99

(2) Treatment Complete—

0-5 years	...	...	503
5-10 years	...	...	95
10 and over	...	...	56
			654

Total New Cases Treated	...	...	753
No. of Primary Schick Negatives	...	...	80
Old cases tested and treated	...	...	184

Total 1,017

Table 18.—Secondary Schick Tests, 1930–1944.

Year	Total	Negative	Positive	Proportion Negative
1930	805	752	53	94.6 per cent.
1931	1166	991	175	85.2 "
1932	913	858	55	92.8 "
1933	893	801	92	89.0 "
1934	1105	1058	47	95.7 "
1935	1405	1388	17	98.8 "
1936	1272	1259	13	98.9 "
1937	732	722	10	98.6 "
1938	581	498	83	85.7 "
1939	215	205	10	95.3 "
1940	353	350	3	99.1 "
1941	488	464	24	95.0 "
1942	2,409	2,248	161	93.3 "
1943	1,232	1,178	54	97.2 "
1944	398	378	20	94.9 "
Totals ...	13,967	13,150	717	94.0 per cent.

Alum-precipitated toxoid (A.P.T.) and toxoid anti-toxin floccules (T.A.F.) were the prophylactics used. The former was administered by the two-dose method (0.1 c.c. followed by 0.5 c.c.) and the latter in three doses of 1 c.c. each at intervals of a fortnight or three weeks.

SWAB EXAMINATIONS.

The following figures indicate the number of swabs examined in connection with the control of diphtheria since 1928.

Year	No. Examined	Year	No. Examined
1928	980	1936	633
1929	1,353	1937	1,092
1930	2,872	1938	1,124
1931	1,936	1939	714
1932	1,022	1940	747
1933	878	1941	711
1934	1,203	1942	3,509
1935	924	1943	3,237
	1944	1,546	

EPIDEMIC DIARRHOEA.

179 notifications were received of which, on investigation, three were found not to be suffering from this disease, leaving a balance of 176 cases (the corresponding figure for 1943 was 148). Epidemic diarrhoea was the principal cause of infant deaths during 1944, the total number attributed to this cause amounting to 65. This is 12 more than the corresponding number in the previous year. Of these 65 deaths, 62 were of infants under one year of age, this figure exceeds by 12 the combined deaths from prematurity, congenital debility and congenital malformations the latter triad being most often the principal factor. The morbidity, mortality and fatality rates were all in excess of the previous year (*vide* table 19). The figures emphasise once more the

lethal nature of this disease and the most depressing feature about it is that it is almost entirely preventible. This point has been stressed so often in these reports that it is not necessary to labour it again. It will suffice to draw attention to the fact that, once more, *there was not a single death from diarrhoea among infants who were being fed at the breast*. The importance of breast-feeding cannot be overstressed, its bearing on infant health is of enormous importance not only in relation to the prevention of disorders of the gastro-intestinal tract (such as diarrhoea) but in the resistance to infection in general. It has been shewn that breast-fed babies possess a much higher resistance to infectious disease than bottle-fed infants. This has been particularly marked in regard to broncho-pneumonia in our own statistics over a number of years and has been the experience of paediatricians everywhere. If deaths from gastro-enteritis in this area could be reduced to zero (as they could be if every infant were breast-fed for the first nine or ten months) our infant mortality rate would be reduced from a figure of 108 to one of 72. And if deaths from broncho-pneumonia could be similarly prevented the figure would further diminish to 59. Infant mortality would then cease to be the social reproach which it is. The part played by this disease in the total of infant mortality is further discussed in the appropriate section (Maternity and Child Welfare). The seasonal distribution of the cases was true to type, the great bulk of the notifications being received during the third quarter. 120 of the total cases were recorded during this period and of these 105 came in during the months of August and September. It is evident, therefore, that the disease was truly epidemic in character and it is to be noted that the enteric infections generally prevail during this period of the year. Nevertheless it is significant that a considerable proportion of the *deaths* occurred at other times. 10 occurred during the first quarter, 14 in the second, 21 in the third and 20 in the fourth. We have evidence therefore that, apart from the epidemic spread of the disease, gross dietetic errors have played their part in killing off infants through gastro-enteritis. This feature has figured prominently in these reports for many years past, being more in evidence some years than others and, by and large, has played a very prominent part in infant mortality in this area. The actual distribution of the cases and deaths is shewn in the immediately following tables:—

Month	Cases	Deaths	Month	Cases	Deaths
Jan. ...	3	6	July ...	15	3
Feb. ...	9	3	Aug. ...	46	8
March ...	5	1	Sept. ...	59	10
April ...	6	2	Oct. ...	9	12
May ...	3	9	Nov. ...	8	3
June ...	7	3	Dec. ...	9	5

The distribution according to *quarters* was as follows:—

	Cases	Deaths
1st Quarter ...	17	10
2nd „ ...	16	14
3rd „ ...	120	21
4th „ ...	26	20

It has already been stated that 179 notifications were received (of which three were cancelled) but of these we failed to trace 29 in the investigations which followed. This has been a constant feature, as alluded to in last year's report, and is due to the mother tendering wrong particulars to the notifying doctor. This is the method adopted by such mothers to secure the attention of the doctor of their choice. Subtracting this number (plus the three cancelled) we were left with a residue of 140 cases traced and investigated. Of this 140 only 5 were breast-fed. These figures speak for themselves. In conjunction with the corresponding figures for each year since 1935 they are analysed in the next table.

Year	Number of Cases according to Manner of Feeding			Cases Untraced	Total
	Breast	Cow's Milk	Dried Milk		
1935	18	128	6	26	178
1936	7	198	5	16	261
1937	18	204	8	51	246
1938	14	108	5	15	142
1939	9	148	13	27	197
1940	13	202	9	62	286
1941	4	173	6	35	218
1942	11	168	24	24	227
1943	10	90	18	30	148
1944	5	128	17	29	179
Totals ...	109	1547	111	315	2082

During the ten years covered by this table 1,767 cases have been investigated and in 93.8 per cent. artificial feeding was the method employed. It is to be noted that these figures do not pretend to complete accuracy and since we do not know the actual number of children at risk in each year we cannot postulate the relative danger of each method of feeding but taken together, the evidence is clear enough that any child subjected to artificial feeding is greatly imperilled thereby and further it can be stated that when artificial feeding is adopted the danger is very much greater when cow's milk is employed. This no doubt is due to faulty methods in preparing feeds and unhygienic conditions generally in the homes. There seems to be much greater risk from cow's milk than from dried milk. Considering the better nutritive value of the former this is unfortunate, but taking facts as we find them we are forced to the conclusion that, in the hands of the average mother, ordinary cow's milk is a highly dangerous article.

In Table 19 are shewn the numbers of cases and deaths from diarrhoea which have occurred in the City since 1907, the year in which the disease was first made notifiable here. The *morbidity* rate is based on the number of cases notified in proportion to the population, the *mortality* rate on the number of deaths per 1,000 of the population while the case *fatality* rate represents the deaths registered per 100 cases notified.

Table 19.—Epidemic Diarrhoea. Return of Cases notified and Deaths registered, together with the Mortality, Morbidity and Case-fatality Rates arising therefrom.

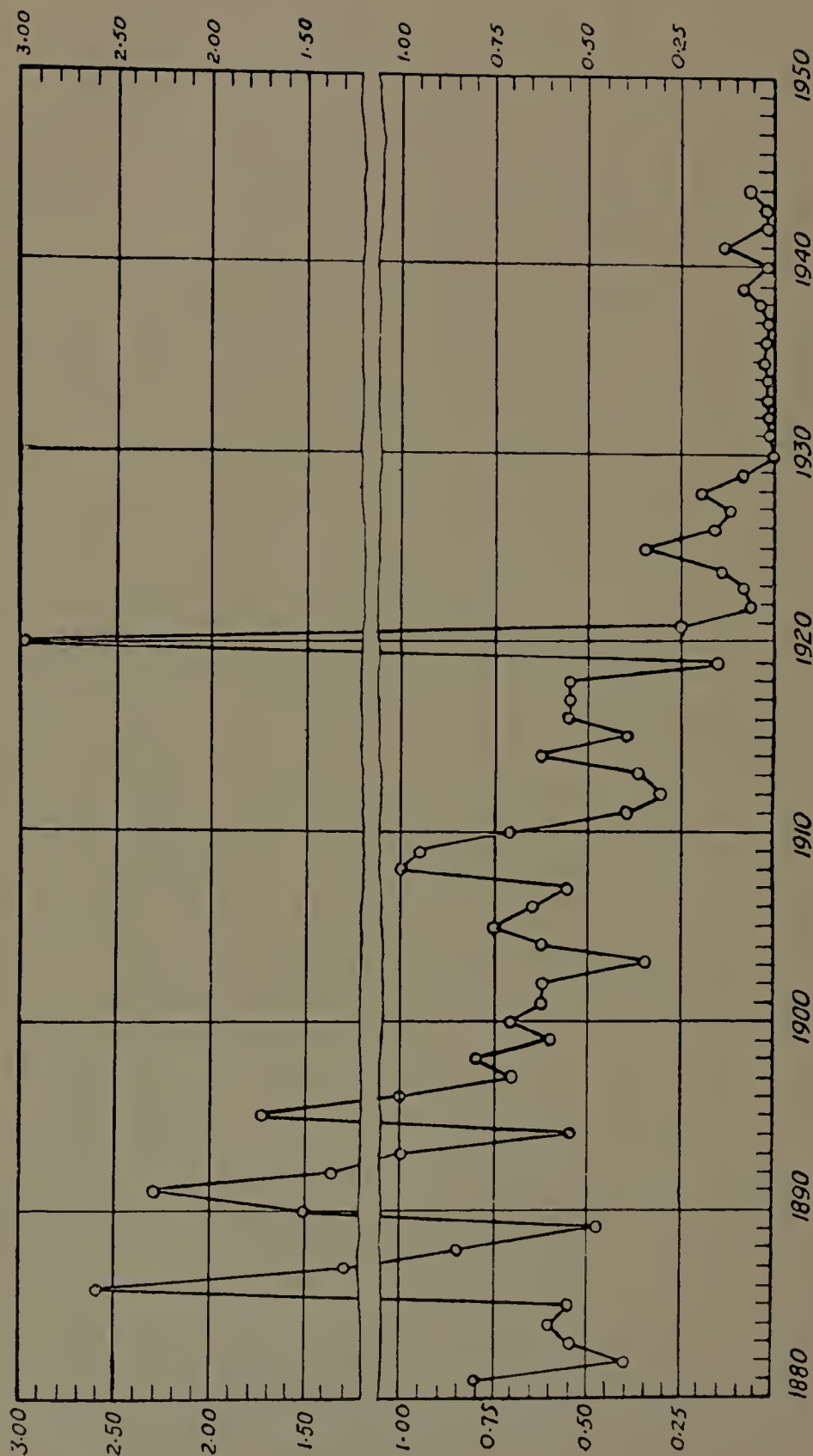
Year	No. of Cases	Rate per 1000 Population (Morbidity)	DEATHS		
			Number Recorded	Mortality Rate	Case Fatality Rate*
1907	413	5.42	48	0.63	11.1
1908	524	6.85	79	1.03	15.0
1909	514	6.72	54	0.71	10.3
1910	159	2.07	34	0.44	21.3
1911	352	4.56	78	1.01	22.1
1912	71	0.92	18	0.23	25.3
1913	320	4.13	114	1.48	35.6
1914	188	2.43	67	0.86	35.6
1915	177	2.29	49	0.63	27.6
1916	139	1.79	35	0.45	25.1
1917	83	1.07	34	0.43	40.9
1918	121	1.55	40	0.51	33.0
1919	85	1.09	40	0.51	47.0
1920	54	0.69	22	0.28	40.7
1921	105	1.35	1	0.01	0.94
1922	19	0.24	—	—	—
1923	35	0.44	24	0.30	68.5
1924	30	0.38	10	0.12	33.3
1925	142	1.81	45	0.58	31.6
1926	108	1.37	53	0.67	49.1
1927	76	0.96	24	0.30	31.5
1928	79	1.00	28	0.35	35.4
1929	78	0.98	25	0.31	32.0
1930	59	0.74	37	0.46	62.7
1931	85	1.06	34	0.42	40.0
1932	178	2.22	46	0.57	27.8
1933	189	2.35	45	0.56	23.8
1934	80	0.99	36	0.44	45.0
1935	178	2.21	56	0.69	31.4
1936	261	3.23	41	0.50	15.7
1937	246	3.04	52	0.64	21.1
1938	142	1.76	33	0.41	23.2
1939	197	2.44	39	0.48	19.8
1940	286	3.54	52	0.64	18.4
1941	218	2.85	36	0.46	16.5
1942	227	2.95	52	0.68	22.9
1943	148	2.00	52	0.68	35.1
1944	179	2.37	65	0.61	36.3

* The *fatality rates* in this table must be read with extreme caution. The fluctuation from year to year is so extreme that it is apparent that notification must have been very defective in the years with abnormally high rates. It is obvious, nevertheless, that this is a most fatal disease of early childhood and the figures lend point to the remarks which have been made above in regard to the prime contributory cause.

TYPHOID FEVER.

Three cases were notified during the year, the City having been free from this disease for the two preceding years. They were in no way connected with one another, the first being notified in January, the second in October and the third in December. They were located

FIG. IV.—ENTERIC FEVER. INCIDENCE (PER 1000 POPULATION) FROM 1880.



in widely separated areas, all were females and recovery ensued in each case. Strictly speaking one of the three should scarcely have been assigned to this area, she having incurred her infection while working as a wardsmaid in the typhoid ward of one of the local fever hospitals. In each of the other two cases the source of infection could not be traced. One was a charwoman employed in the laundry of a local general hospital. There was no question of contact with a possible case of typhoid in this institution and the absence of subsequent cases more or less ruled out the question of a carrier among the patients or staff. One clue led to enquiries of the local dispensary doctor in one of the outlying rural districts but this also proved negative. Water or milk borne infection had to be ruled out. The remaining case was a married woman residing in a cottage dwelling in an insanitary neighbourhood and in her case too it was impossible to trace any possible source of infection. There were no secondary cases in either of these three incidents.

Considering the very large outbreak of typhoid fever which occurred in this city in 1920 (*vide* Annual Report, 1934) it is surprising that the aftermath has not been more serious. 244 cases were notified in the city area for that period but it was calculated (on the basis of the death rate) that the adjoining rural district must have contributed an additional 730. There must have therefore been a considerable residue of carriers remaining among the community although a great number of these will have naturally died off in the intervening years. The epidemic, however, affected all age groups so that there must still be a substantial number of survivors. One feature of modern life is certainly a cause for apprehension in regard to the spread of typhoid fever and enteric infections generally. That is the extended use of cooked foods (especially meat) purchased over the counter. It requires no stretch of imagination to realise how such foodstuffs might be infected by a carrier or a mild ambulant case. The organism will have been implanted in a suitable nidus and infection may well be spread by this means. Such a hypothesis would account for sporadic outbreaks of typhoid as well as the cases of dysentery which have been attracting attention for some considerable time. There is no reason to doubt that many of the cases of diarrhoea which have been noted among adults in recent years have been true dysenteries and many such cases have been noted recently in medical literature. Two cases of dysentery were notified in this area during the past twelve months and since these were only cases in which the doctor took the precaution of sending material for examination it is reasonable to assume that if similar precautions were taken in *all* cases of diarrhoea many more would come to light. This is a matter of considerable importance. It is common knowledge that there were outbreaks of diarrhoea in some seaside resorts during the past two summers and, even at secondhand, it is clear from the epidemiological data and the clinical findings that they were epidemics of dysentery. Again in these instances the consumption of cold cooked meat figured conspicuously.

It is clear, therefore, that the time is ripe for the introduction of more rigid standards in regard to the handling of food, certainly in regard to the personal cleanliness of those who have to do with its distribution.

The general trend of typhoid fever from the year 1881 is shewn in Table 20.

Table 20.—Incidence and Case Fatality of Enteric Fever in Cork City from 1881.

Year	Cases	Incidence per 1,000	Deaths	Fatality Rate
1881	66	0.82	4	6.5
1882	37	0.46	4	10.8
1883	45	0.56	11	24.4
1884	48	0.61	13	27.0
1885	43	0.55	9	20.9
1886	180	2.57	42	23.3
1887	100	1.30	20	20.0
1888	66	0.86	9	13.6
1889	37	0.48	9	24.3
1890	113	1.50	12	10.6
1891	165	2.33	17	10.3
1892	104	1.37	17	18.3
1893	78	1.03	14	17.9
1894	43	0.57	13	30.2
1895	132	1.74	16	12.1
1896	94	1.00	24	25.5
1897	51	0.70	9	17.6
1898	62	0.81	13	20.9
1899	47	0.62	8	17.0
1900	50	0.70	5	10.0
1901	51	0.67	5	9.8
1902	49	0.64	5	10.2
1903	27	0.35	5	18.5
1904	50	0.64	8	16.0
1905	58	0.76	8	13.8
1906	48	0.66	5	10.4
1907	44	0.57	4	9.1
1908	88	1.02	16	18.2
1909	74	0.95	15	20.2
1910	54	0.70	13	24.0
1911	32	0.41	5	15.6
1912	26	0.33	6	23.0
1913	29	0.38	6	20.7
1914	50	0.64	4	8.0
1915	32	0.41	5	15.6
1916	42	0.54	6	14.3
1917	43	0.55	3	6.9
1918	42	0.54	8	19.0
1919	12	0.15	1	8.3
1920	244	3.13	13	5.3
1921	21	0.26	4	19.0
1922	6	0.07	2	33.3
1923	7	0.09	1	14.2
1924	11	0.14	2	18.1
1925	27	0.34	5	18.5
1926	11	0.14	2	18.2
1927	10	0.12	2	20.0
1928	17	0.21	2	11.7
1929	6	0.08	1	16.6
1930	—	—	—	—
1931	1 (a)	0.01	1	100.0
1932	1 (a)	0.01	1	100.0
1933	2 (a)	0.02	—	(b)
1934	1	0.01	—	—
1935	3	0.03	—	—
1936	2	0.02	—	—
1937	1	0.01	—	—
1938	3 (a)	0.03	1	33.3
1939	7	0.08	—	—
1940	2	0.02	—	—
1941	12	0.15	—	—
1942	—	—	—	—
1943	—	—	—	—
1944	3	0.03	—	—

(a) Infection in all these cases was incurred outside the City.

(b) Two deaths were recorded in Cork Mental Hospital (Co. Area) of inmates who formerly resided in the City

SCARLET FEVER.

85 cases were reported. There was no death.

TYPHUS.

For the fifteenth year in succession there has been no case. As a matter of interest the table relative to this disease, first published in 1935, is reproduced in this report.

Table 21.—Incidence and Case Fatality of Typhus Fever in Cork City from 1881.

Year	Cases	Incidence per 1,000	Deaths	Fatality Rate
1881	1406	17.42	88	6.2
1882	683	8.57	54	7.9
1883	844	10.66	46	5.4
1884	456	5.65	37	8.1
1885	159	2.03	21	3.2
1886	83	1.06	17	18.0
1887	67	0.86	12	17.9
1888	72	0.93	21	27.7
1889	48	0.63	5	10.4
1890	54	0.71	7	12.9
1891	24	0.30	5	20.8
1892	162	2.28	23	14.1
1893	92	1.20	7	7.6
1894	25	0.33	2	8.0
1895	29	0.38	8	31.0
1896	22	0.29	7	31.8
1897	30	0.39	3	10.0
1898	61	0.80	11	18.0
1899	9	0.10	6	66.6
1900	28	0.36	4	14.3
1901	13	0.17	2	15.38
1902	6	0.07	—	—
1903	7	0.09	—	—
1904	11	0.14	1	9.1
1905	9	0.11	2	22.2
1906	6	0.07	4	66.6
1907	10	0.13	6	60.0
1908	23	0.30	6	26.1
1909	18	0.24	5	27.7
1910	8	0.10	3	37.5
1911	10	0.13	—	—
1912	1	0.01	—	—
1913	5	0.06	2	40.0
1914	1	0.01	1	100.0
1915	—	—	—	—
1916	1	0.01	1	100.0
1917	3	0.04	1	33.3
1918	1	0.01	1	100.0
1919	15	0.19	3	20.0
1920	2	0.03	—	—
1921	1	0.01	1	100.0
1922	—	—	—	—
1923	1	0.01	1	100.0
1924	1	0.01	—	—
1925	—	—	—	—
1926	3	0.04	1	33.3
1927	4	0.05	—	—
1928	1	0.01	—	—
1929	1	0.01	1	100.0

There has been no case since 1929.

SCABIES.

The provisions of the Public Health (Infectious Diseases) Regulations, 1941 were made applicable to this condition by special regulations made by the Minister for Local Government and Public Health on 19th October, 1943, under title of Public Health (Infectious Diseases) (Amendment) (No. 2) Regulations, 1943, the effect of which was to make the condition notifiable. 1,889 such notifications were received during the past year (as compared with 558 in 1943), but it must be pointed out the latter figure represents a period of two months only. Our experience of this matter has been such as to lead to the conclusion that notification has served no useful purpose whatever. An account was given in last year's report of the circumstances leading up to formulation of the scheme for dealing with scabies and in table 22 particulars of attendances at the Treatment Centre are set out.

Table 22.—Scabies Treatment Centre. Attendances, 1944.

WEEK ENDED	MALE SIDE			FEMALE SIDE			Com- bined Total	Pro- gressive Total
	1st Treat- ment	2nd Treat- ment	TOTAL	1st Treat- ment	2nd Treat- ment	TOTAL		
13-5-44	197	88	285	420	186	606	891	—
20-5-44	99	99	198	285	257	542	740	1,631
27-5-44	76	69	145	205	154	359	504	2,135
3-6-44	52	37	89	164	89	253	342	2,477
10-6-44	79	49	128	146	98	244	372	2,849
17-6-44	94	55	149	230	127	357	506	3,355
24-6-44	87	66	153	251	187	448	601	3,956
1-7-44	76	46	122	160	152	312	434	4,390
8-7-44	63	36	99	187	123	310	409	4,799
15-7-44	82	62	144	224	134	258	502	5,301
22-7-44	76	74	150	190	175	365	515	5,816
29-7-44	85	42	127	152	146	298	425	6,241
3-8-44	65	52	117	170	141	311	428	6,669
12-8-44	55	24	79	115	84	199	278	6,947
19-8-44	65	50	115	154	122	276	391	7,338
26-8-44	55	43	98	108	111	219	317	7,655
2-9-44	56	42	98	143	89	232	330	7,985
9-9-44	54	27	51	120	100	220	301	8,286
16-9-44	108	75	183	200	123	323	506	8,792
23-9-44	102	64	166	198	168	366	532	9,324
30-9-44	147	77	224	247	146	393	617	9,941
7-10-44	166	132	298	356	297	653	951	10,802
14-10-44	101	85	186	197	181	378	564	11,366
21-10-44	81	51	132	168	132	300	432	11,798
28-10-44	78	62	140	185	145	330	470	12,268
4-11-44	79	53	132	162	159	321	453	12,721
11-11-44	63	44	107	117	84	201	308	13,029
18-11-44	50	65	115	78	128	206	321	13,350
9-12-44	159	79	238	305	174	479	717	14,067
16-12-44	74	68	142	127	157	284	426	14,493
23-12-44	62	60	122	80	93	173	295	14,788
30-12-44	23	11	34	39	16	55	89	14,877

The hiatus between 18th Nov. and 9th Dec. is due to the fact that it was necessary to close down the Centre during this period, while a new boiler was being installed. There is still a good deal of reluctance on the part of many people to avail of the facilities which are now at their disposal. This is all the more regrettable since we have evidence of the very beneficial effect of the treatment. Our records too shew that there have been several instances in which re-infestation has taken place due to the fact that some members of the family refrained from coming for treatment. On the whole, however, it may be said that the scheme subserves a very useful purpose indeed and, as shewn by the figures, that it has been availed of by a large number of persons. It will be noted that during the eight months of its existence there were just over 14,800 attendances, the number of individuals represented by this figure being 8,368. I have pleasure in recording the excellent work done by the staff of the Treatment Centre and the fine team spirit displayed throughout. Many difficulties which could not be foreseen in drafting the original scheme had to be overcome and it is a testimony to the efficiency and goodwill of the staff to be able to say that they had only to be encountered to be overcome. At my request the Medical Officer of the Centre (Dr. J. K. Moynihan) drew up a report on the working of the scheme. It is appended herewith.

SCABIES TREATMENT CENTRE.

Report on Working of Scheme—1944.

(*Dr. J. K. Moynihan, M.O., in charge.*)

A centre for the treatment of scabies was opened under the direction of the Public Health Department in May, 1944. The provision of such a clinic became necessary with the increased incidence of the disease to epidemic proportions in the City. Previous to the commencement of the scheme, scabies had been made a notifiable disease to enable the M.O.H. to estimate the numbers affected and the proportion of cases among school children.

The premises previously used as the "Turkish Baths" was acquired and structural alterations were made to enable large numbers of patients to be treated daily. A full-time Medical and Nursing Staff was engaged, who before taking up duty, were afforded an opportunity of studying the methods employed in other clinics for the treatment of scabies. In addition to the doctor in charge of the treatment centre, male and female nurses and attendants were engaged and the arrangement enabled patients of both sexes to be completely segregated.

The standard preparation used in treatment was an emulsion of benzyl benzoate (25%). Routine treatment for adults consisted of a hot shower bath and thorough washing with soap, following which the patients were painted with benzyl benzoate by means of brushes. This preparation was then well rubbed into the skin until it had dried completely. Four days later a second similar treatment was given to each patient. Two treatments at an interval of four days constituted a full course. To infants under one year, a different treatment was given. They had two applications on successive days of an ointment consisting

of balsam of Peru in vaseline and two days later had a painting with benzyl benzoate emulsion to complete a course of treatment. A feature of the arrangement of the baths was the provision of special sinks which made the bathing of large numbers of infants very much simpler and more labour saving. In keeping with the latest views on the matter of the clothing of patients suffering from scabies, no special measures were taken to deal with underclothing, etc.

In view of the fact that there was no means of compelling infected persons to attend the Treatment Centre, it was obvious that its success depended entirely upon the co-operation of the public and upon the extent to which they would avail of the facilities afforded for treatment. It was apparent from the outset that the majority of people suffering from scabies were excessively shy in regard to their complaint and preferred to continue to suffer from its distressing symptoms or to try some form of home treatment rather than avail of the free medical advice and skilled treatment put at their disposal at the scabies clinic. This reluctance to attend for treatment was evident in all classes of the public and even the poorer classes often went to considerable expense in buying various proprietary preparations to treat this condition at home. This non-co-operative attitude towards the Treatment Centre apparently arose from the impression generally held by the public that scabies was associated with lack of hygiene and neglect and that its occurrence in a family was consequently somewhat of the nature of a stigma, which must be dealt with privately. It soon became obvious also that many chemists were exploiting this shyness on the part of patients suffering from scabies and were dispensing more or less indiscriminately, proprietary preparations and sulphur ointments as a method of treatment, showing that there was to a large extent a complete disregard for the possible harm which could result from such treatment. Too often were the adverse effects of these quack treatments clearly demonstrated in patients who had subsequently to attend the scabies clinic. It was frequently necessary to undo the harm caused by too vigorous and prolonged use of sulphur ointments and sulphur containing preparations before attention could be given to the treatment of scabies.

For the purpose of informing the public of the symptoms of the disease and to impress on them the facilities afforded at the clinic, the assistance of the Press was obtained and from time to time instructive reports dealing with these matters were published. In addition, leaflets containing a concise description of the signs of scabies, the complications which followed neglect of the condition and details of the treatments available at the Treatment Centre were printed and distributed in all the City schools. This leaflet perhaps, more than any other single measure was responsible for the increased attendance of patients especially school children for treatment. The larger attendance which invariably followed as a direct result of reports in the Press of the continued incidence of scabies, clearly demonstrated the need of keeping the public informed of the seriousness of a condition which was widespread amongst them and of periodically exhorting those affected to seek proper treatment. The co-operation of dispensary doctors and in particular of school teachers in directing patients to the Treatment Centre, contributed greatly to its success.

Considerable numbers of people resident outside the City boundaries attended the clinic for treatment. In addition, many City and County residents availed of the free medical advice at their disposal at the Centre and carried out the treatment directed in their own homes.

The following figures indicate the number of attendances made at the clinic during 52 weeks since its commencement (including 2 weeks during which the premises was closed for alterations):—*

MALE (over 6 years).

1st Bath—4,117. 2nd Bath—2,861. Total Treatments—6,978.

FEMALE (including males under 6 years).

1st Bath—8,498. 2nd Bath—6,710. Total Treatments—15,208.

Total of 1st Baths.	Total of 2nd Baths.	Grand Total of Treatments.
12,615	9,571.	22,186.

Average per week—443.

It will be observed from these figures that 3,044 patients or approximately 25 per cent. of cases, failed to attend for the second treatment of a course, thereby failing to have full treatment.

During the whole period in which the scheme for treating scabies has been in practice, two factors have militated considerably against its success:—(1) A large proportion of cases, being much improved as the result of a single treatment failed to return for the second treatment which completes the course. As a result of this carelessness, often due to parents neglecting to bring or send their children for full treatment, cases found themselves in many instances compelled to return for treatment before much time had elapsed because of unmistakable evidence that they were still infected. It was then necessary to start treatment over again. From the figures given above, it will be seen that approximately 25 per cent of cases were defaulters in this respect. To make the scheme as successful as possible, a special effort was made to deal with such cases. When they had failed to attend within the prescribed time for second treatment, a member of the staff or a sanitary officer visited them at their homes and impressed on them the need to complete treatment. A proportion of cases made a second attendance as the result of this measure but the majority ignored the appeal. (2) The need for the attendance for treatment of *all* members of a family where one or more showed signs of infection could not be sufficiently impressed on parents. The fact that most of the family were as yet not complaining seemed to them clear evidence that it was necessary to treat only members obviously infected. The idea that the remainder of the family were contacts and would almost certainly in the course of a short time also show evidence of the disease was foreign to them. It was consequently necessary to impress this all important feature on every patient, but rarely was the advice to have the whole family treated, acted upon. Too often, then, scabies continued to affect one or two members of a family at a time over a long period. This was largely responsible for the re-appearance of infection in patients

*Note.—These figures do not correspond with these in Table 22 which covers a period of eight months only.

previously cured and for their attendance at the Treatment Centre at more or less regular intervals of a few months. The number of families that attended the clinic, the number of cases in which all members of a family attended and the number of cases in which some members failed to attend, are given below :—

Total Number of Families Treated.	No. of Complete Families.
2,781.	530 (19%).
No. of Incomplete Families—2,251 (81%).	

The extent to which the two factors mentioned militated against the success of the scabies scheme is well illustrated by the following figures of the families visited in their homes by members of the staff of the clinic in an effort to prevail on individuals to come for treatment or to complete treatment commenced but broken. 48 are chosen. The 48 families represent 292 individuals. Of this number 181 (or 62%) presented themselves for treatment and 111 (or 37.3%) never attended. Of the 181 patients who attended, only 57 (or 31.5%) completed a full course of treatment by making two attendances at an interval of four days. The remaining 124 patients failed to return as ordered. The homes of these patients were visited by the staff but only 34 of the 124 cases returned as the result of this appeal to complete treatment, leaving 90 persistent defaulters. These figures are given in brief below :—

Families—48. Individuals—292. Attended—181 (62.7%).

Did not attend at all—111 (37.3%). Completed voluntarily—57 (31.5%).

Completed subsequently—34 (18.7%). Defaulters—90 (49.7%).

Occasionally there arose cases where all members of a family attended for treatment with the exception of one child or parent who, being an invalid, was unable to attend. Some measure had to be adopted to include these cases within the scope of the scabies scheme and, wherever possible, a member of the staff of the clinic visited these invalids in their homes and there carried out the treatment. However, several such cases refused the offer of skilled treatment in their homes.

Special measures were adopted to deal with cases complicated by secondary infection and impetigo. These complications occurred with remarkable frequency, apparently largely because of the fact that most cases had been suffering from scabies for a considerable period before seeking proper treatment and neglect of the original simple condition had resulted in the added secondary infection. To cases thus complicated, lotions having as their principal ingredient Hyd. Perchlor. were supplied at a nominal charge and patients were instructed to use these lotions at home.

When the Treatment Centre opened originally, no special precautions were taken to deal separately with cases of secondary infection and of contacts. The occurrence of staphylococcal infections of the skin following painting with benzyl benzoate was soon detected in cases which had previously been free. It became necessary then to adopt some plan to avoid this contamination. The simple procedure of dividing all patients into three groups, simple scabies, contacts and those with additional secondary infection, and the use for each group of separate utensils and brushes which were disinfected immediately after each treatment at once proved effective in preventing the occurrence of staphylococcal infections.

Pediculosis.

A proportion of patients showed evidence of pediculosis infestation, in most cases in addition to scabies. In some, however, infestation alone was responsible for symptoms such as skin irritation and rash. Instructions were given to these cases in personal hygiene and they were advised as to the proper methods of ridding themselves of the infestation. More recently a supply of D.D.T. was made available for use at the clinic and routine treatment of pediculosis infestation by this means was employed. With a view to estimating the incidence of infestation, a survey was made of all cases attending the Treatment Centre over a period of time. The results of this survey are given below and are of considerable interest especially in regard to the occurrence of pediculosis in school children.

Total attendances made over a period of 45 days—2,478 (including 651 school children, 5–15 years).

Number infested—234 (including 131 school children, 5–15 years).

From these figures it will be seen that total percentage infestation was 9.5%, while the percentage infestation among school children (5–15 years) was 20%.

As might be expected many cases attended the clinic for advice on skin conditions other than scabies, under the impression that they were suffering from this complaint. Thus a variety of diseases was seen including varicella, prurigo, psoriasis, ringworm, sycosis barbae, herpes zoster, food, drug, and medicinal rashes and occasionally syphilis in its secondary stage. As far as was possible within the scope of the clinic, advice was given on the treatment of these ailments or where necessary patients were directed to attend their usual medical advisers. Syphilitic cases were referred to the V.D. clinics.

Permission was obtained from the R.M.S. Cork District Hospital, to admit to the skin wards of the hospital any cases of secondary infection and impetigo so severe as to require the constant attention available only under hospital conditions. In this way full treatment could be given to such cases. This co-operation on the part of the Medical Staff of the Cork District Hospital was greatly appreciated and served to smoothen out many difficulties.

VACCINATION.

The figures appended herewith, which are taken from the Annual Summaries of the Registrar General, relate to the number of persons vaccinated in each locality concerned. The data give cause for uneasiness.

Year	CORK			DUBLIN			LIMERICK			WATERFORD		
	Births	Vaccinations	Proportion	Births	Vaccinations	Proportion	Births	Vaccinations	Proportion	Births	Vaccinations	Proportion
1936	1,921	1,833	95%	11,582	3,903	34%	975	622	64%	661	54	8%
1937	1,706	1,898	110%	11,652	3,199	27%	1,006	672	67%	696	71	10%
1938	1,761	1,532	87%	11,534	4,076	35%	1,030	579	55%	626	27	4%
1939	1,632	1,591	97%	11,384	3,051	27%	1,073	596	55%	614	16	3%
1940	1,670	1,050	63%	11,064	2,700	24%	984	601	61%	677	43	6%
1941	1,753	1,138	65%	11,305	3,412	30%	1,007	558	55%	613	30	5%
1942	1,706	1,065	62%	12,528	3,517	28%	1,115	763	68%	807	47	6%
1943	1,781	1,233	69%	12,673	2,005	15%	1,075	748	69%	737	58	7%
1944	1,712	1,272	74%	12,074	1,525	12%	1,002	856	85%	644	34	5%

Five prosecutions for failure to comply with the Acts were undertaken during the year. In one instance a fine of 2/6 was imposed, in three the fine was 1/- and in the fifth case 6d.

OTHER INFECTIOUS DISEASES.

Notifications in regard to other infectious diseases during the year were as follows :—

Scabies	...	...	...	1889	(558)
Whooping Cough	...	...	...	219	(36)
Cerebro Spinal Fever	...	...	...	5	(3)
Poliomyelitis	...	...	...	3	(—)
Puerperal Pyrexia	...	...	...	2	(—)
Dysentery	...	...	...	1	(—)
Ophthalmia Neonatorum	...	...	...	1	(—)

Figures in parenthesis indicate corresponding notifications in the previous year.

Particulars of Articles Disinfected during the year.

	Bed Ticks	Mat- tresses	Articles of Bedding	Articles of Wearing Apparel	Miscel- laneous Articles	Total No. of Articles
January ...	2	33	204	47	16	302
February ...	10	34	243	3	21	311
March ...	8	59	366	43	43	519
April ...	5	42	219	13	25	304
May ...	4	41	191	18	25	279
June ...	4	32	136	9	36	267
July ...	2	30	136	12	33	233
August ...	6	33	246	20	26	331
September ...	7	37	272	32	36	384
October ...	5	42	206	3	15	271
November ...	4	33	133	14	22	206
December ...	2	39	299	7	29	376
	59	455	2,701	347	347	3,783

Section III.—Tuberculosis

The death rate from pulmonary tuberculosis for the year was 1.53 per 1,000 of the population. The following table shows the death-rates each year from 1891 to the present time.

Table 24.—Deaths and Death Rates Pulmonary Tuberculosis.

Year	No. of Deaths	Rate per 1,000 pop.	Year	No. of Deaths	Rate per 1,000 pop.
1891	295	3.93	1918	187	2.43
1892	303	4.04	1919	156	2.04
1893	314	4.18	1920	159	2.07
1894	296	3.94	1921	125	1.64
1895	261	3.48	1922	176	2.30
1896	299	3.98	1923	130	1.64
1897	260	3.46	1924	164	2.09
1898	283	3.77	1925	134	1.71
1899	320	4.26	1926	126	1.60
1900	281	3.74	1927	129	1.60
1901	289	3.80	1928	109	1.39
1902	287	3.79	1929	141	1.79
1903	279	3.67	1930	114	1.45
1904	352	4.63	1931	124	1.56
1905	294	3.86	1932	111	1.40
1906	261	3.43	1933	106	1.35
1907	278	3.65	1934	104	1.34
1908	245	3.22	1935	115	1.46
1909	264	3.47	1936	85	1.06
1910	233	3.06	1937	96	1.20
1911	252	3.29	1938	99	1.21
1912	231	3.01	1939	86	1.06
1913	202	2.62	1940	96	1.17
1914	231	3.01	1941	86	1.12
1915	211	2.88	1942	106	1.38
1916	189	2.46	1943	107	1.38
1917	202	2.63	1944	118	1.56

It will be noted that there has been an increase of eleven deaths as compared with the previous year. In addition to these eleven deaths there was a further increase of four deaths from non-pulmonary tuberculosis, making a total of fifteen deaths from tuberculosis over and above those recorded for the previous year. This represents an increase of 10.3 per cent. The number of deaths in 1943 was approximately 22.6 per cent. over that recorded in 1941. The combined tuberculosis mortality rate was 1.9 per 1,000, the corresponding rates (according to the Annual Summary of the Registrar General) were for Dublin 1.6, Limerick 2.1, Waterford 1.4, while that for the whole country was 1.3 per 1,000. The general trend of mortality in this area is shewn in tables 24, 25 and 26. It cannot be said that any definite check in the upward trend has yet become apparent, either in this area or for the country as a whole and it is apparent that the situation will have to be watched with anxiety for the next few years.

FIG. V.—PULMONARY TUBERCULOSIS. DEATH RATE (PER 1000 POPULATION) FROM 1891 TO PRESENT.

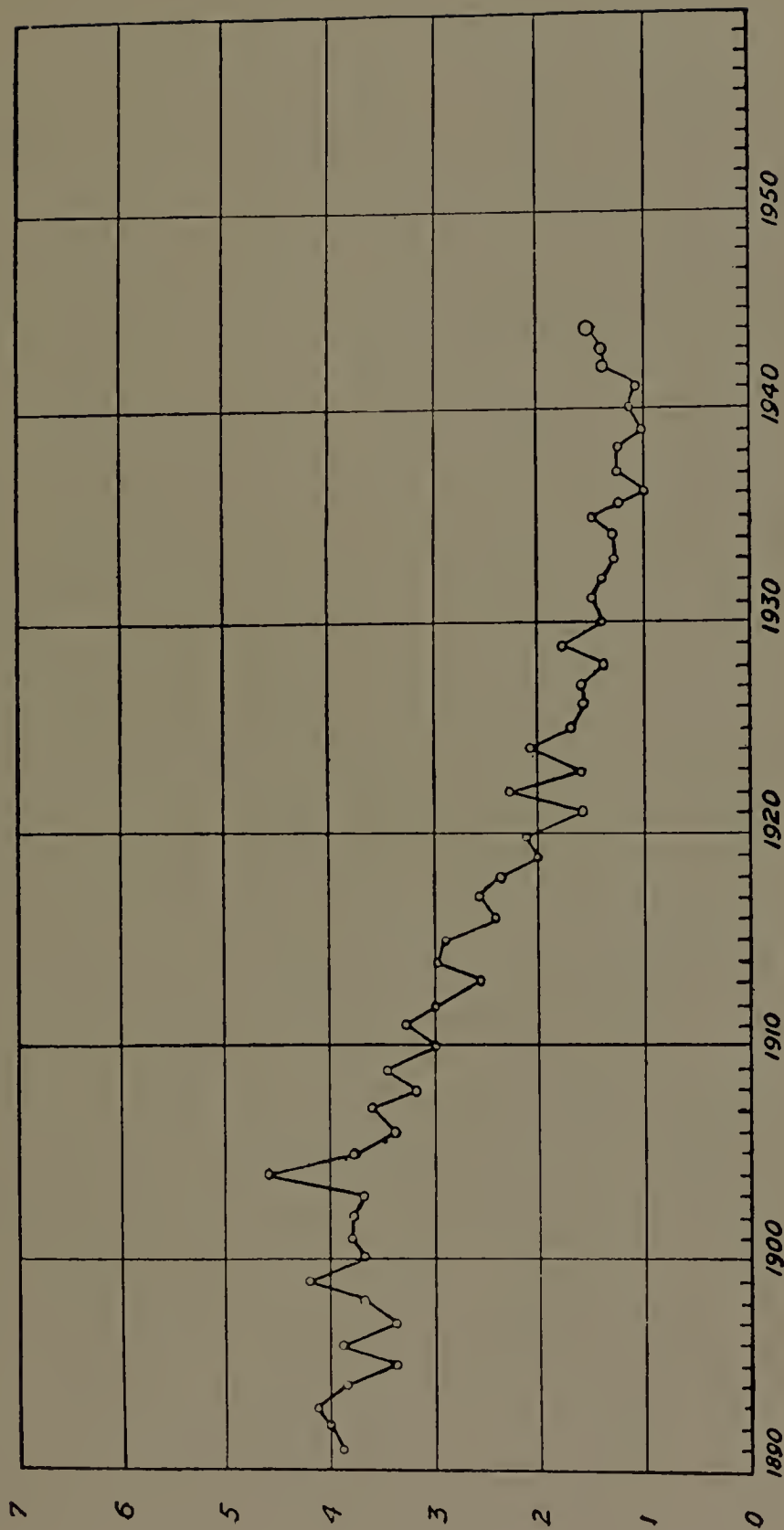


Table 25.—Deaths and Death Rates from *non-pulmonary* Tuberculosis.

Year	No. of Deaths	Rate per 1,000 pop.	Year	No. of Deaths	Rate per 1,000 pop.
1906	81	1.06	1925	31	0.39
1907	84	1.10	1926	46	0.58
1908	93	1.08	1927	35	0.44
1909	78	1.02	1928	29	0.36
1910	75	0.97	1929	17	0.21
1911	73	0.95	1930	25	0.31
1912	71	0.92	1931	46	0.57
1913	79	1.02	1932	45	0.56
1914	79	1.02	1933	19	0.24
1915	72	0.93	1934	21	0.25
1916	69	0.89	1935	29	0.36
1917	78	1.00	1936	20	0.25
1918	75	0.96	1937	24	0.29
1918	58	0.74	1938	13	0.16
1920	46	0.59	1939	14	0.17
1921	34	0.43	1940	29	0.35
1922	39	0.50	1941	20	0.26
1923	32	0.40	1942	18	0.24
1924	32	0.40	1943	23	0.30
			1944	27	0.35

The effect of combining pulmonary and non-pulmonary deaths is shewn in table 26. Figures for pulmonary deaths are available from 1891 and form a useful comparative record, but those for the non-pulmonary form are available from 1916 only. It will be noted that, despite the war-time decrease, the general tendency has been distinctly downward. The various influences which have produced the recent increased death-rates were fully discussed in the 1942 and 1943 reports and cannot be further discussed with benefit at this stage.

Table 26.—Combined Deaths and Death rates from Pulmonary and Non-pulmonary Tuberculosis.

Year	Pulmonary Deaths	Non-pulmonary Deaths	Total	Rate per 1,000 pop.
1906	261	81	342	4.49
1907	278	84	362	4.74
1908	245	93	338	4.42
1909	264	78	342	4.47
1910	233	75	308	4.01
1911	252	73	325	4.23
1912	231	71	302	3.92
1913	202	79	381	3.64
1914	231	79	310	4.02
1915	211	72	383	3.66
1916	189	69	258	3.33
1917	202	78	280	3.61
1918	187	75	262	3.37
1919	156	58	214	2.75
1920	159	46	205	2.64
1921	125	34	159	2.03
1922	176	39	215	2.75
1923	130	32	162	2.05
1924	164	32	196	2.50
1925	134	31	165	2.10
1926	126	46	172	2.18
1927	129	35	164	2.08
1928	108	29	138	1.74
1929	141	17	158	2.00
1930	117	25	142	1.78
1931	124	46	170	2.13
1932	111	45	156	1.95
1933	106	19	125	1.56
1934	107	21	128	1.59
1935	115	29	144	1.78
1936	85	20	105	1.29
1937	96	24	120	1.48
1938	99	13	112	1.38
1939	86	14	100	1.23
1940	96	29	125	1.54
1941	86	20	106	1.38
1942	106	18	124	1.57
1943	107	23	130	1.69
1944	118	27	145	1.92

An examination of the causes of the 27 deaths attributed to non-pulmonary tuberculosis yields the following figures.

Tuberculous meningitis	...	...	11
Bones and joints	...	...	7
Abdominal disease	...	...	2
Supra-renal gland	...	...	2
Generalised disease	...	...	2
Peritonitis	...	...	1
Miscellaneous	...	...	2

The preponderant role of meningitis is very obvious. A further examination of the figures brings out this feature in a very marked degree as is seen in the next table.

Table 27.—Classification of Deaths from non-pulmonary Tuberculosis.

Cause of Death		1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Meningitis...	...	9	10	10	12	10	12	8	6	15	10	9	16	11
Peritonitis	...	4	4	—	3	3	2	—	3	7	2	2	2	1
Bones and Joints	...	4	3	2	4	4	4	2	1	2	5	1	1	7
Genito-urinary	...	3	1	1	1	—	—	—	1	2	2	2	—	—
Abdominal	...	4	—	—	3	2	2	—	1	—	1	1	1	2
Generalised														
Tuberculosis	...	6	1	5	3	—	1	2	1	—	1	1	—	2
Glands	...	—	1	2	—	1	1	—	—	1	—	—	1	—
Addison's Disease	...	—	—	1	2	—	2	—	1	1	—	2	—	2
Skin	...	2	—	—	—	—	—	1	—	1	—	—	1	—
Miscellaneous	...	3	—	—	1	—	—	—	—	—	—	—	1	2
Totals	...	35	20	21	29	20	24	13	14	29	21	18	23	27

Tuberculous meningitis is almost invariably of human origin. With the exception of glandular disease and, possibly, abdominal tuberculosis most of the conditions listed in table 28 may be said to be of haematogenous origin and due, in the first instance, to pulmonary infection of human origin from which it would seem clear that the control of the human carrier or case must be the prime consideration in the attack on tuberculosis.

Table 28.—Deaths from Pulmonary Tuberculosis distributed according to sex and age groups.

Year	Sex	All Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
1923	M	70	—	2	4	16	12	17	14	4	1
	F	66	—	2	4	13	19	14	8	4	2
1924	M	80	—	2	1	13	16	20	16	9	3
	F	73	—	—	2	17	23	16	7	5	3
1925	M	59	1	3	2	10	17	15	8	3	—
	F	77	1	2	5	23	20	13	6	4	3
1926	M	65	1	2	4	14	14	16	7	5	2
	F	60	—	—	5	11	19	12	9	2	2
1927	M	62	1	1	1	1	15	22	10	4	1
	F	72	—	4	3	16	18	16	10	4	1
1928	M	49	—	1	1	11	10	11	10	4	1
	F	67	—	1	4	15	21	12	7	7	—
1929	M	65	—	2	—	16	14	16	11	2	4
	F	80	—	—	2	24	24	17	7	2	4
1930	M	58	—	—	1	16	16	14	9	2	—
	F	46	—	1	2	9	14	10	5	3	2
1931	M	62	—	1	—	12	16	11	13	8	1
	F	61	—	1	4	15	17	14	6	3	1
1932	M	58	—	—	1	7	22	15	8	4	1
	F	54	—	1	3	14	21	5	7	3	—
1933	M	52	—	—	—	8	17	14	11	1	1
	F	53	—	—	—	18	12	10	9	3	1
1934	M	53	—	—	2	6	13	16	12	3	1
	F	50	—	—	1	14	12	16	3	3	1
1935	M	58	1	1	—	10	9	20	13	4	—
	F	54	—	—	2	11	18	9	11	3	—
1936	M	38	—	—	2	7	11	15	8	5	—
	F	34	—	1	—	6	8	7	5	6	1
1937	M	56	—	—	—	9	10	13	13	8	2
	F	40	—	—	2	10	9	10	4	5	—
1938	M	61	—	—	—	12	12	13	17	4	3
	F	38	—	—	—	4	15	10	7	2	—
1939	M	53	—	—	1	10	6	13	16	6	1
	F	33	—	—	2	11	4	6	6	4	—
1940	M	48	—	—	—	12	9	10	9	8	—
	F	48	1	—	—	12	13	14	4	2	2
1941	M	46	—	—	—	8	11	12	9	6	—
	F	42	—	—	—	5	10	14	9	4	—
1942	M	61	—	—	1	9	13	12	15	5	5
	F	45	—	—	1	17	9	7	6	4	—
1943	M	61	—	1	—	4	15	14	14	9	4
	F	46	—	—	2	15	10	8	3	6	2
1944	M	61	—	1	—	12	9	16	11	7	5
	F	57	1	—	1	13	20	8	4	8	2

There are certain discrepancies between the figures in table 28 and those which appear in tables 24 to 26 inclusive. In the table above the figures from 1923 to 1936 inclusive are taken from the Annual Reports of the Registrar General for the appropriate years. Prior to 1929 the figures in tables 24 and 25 are taken from the records of this Department over a great number of years (see table 9). From 1937 onwards the figures are taken from the records of deaths compiled in the Department itself from the District Registrar's weekly returns. With the exception of one or two years the discrepancies are not very great and since the main object of such tables is to display the *trend* of deaths the conclusions which may be drawn from them are not vitiated to any material extent. Similar observations apply to the following table (in which deaths from non-pulmonary tuberculosis are arranged into age and sex groups) except that in this case all are compiled from the District Registrars' returns and accordingly may be said to represent the facts with a reasonable degree of accuracy. In the case of *non-pulmonary* tuberculosis, however, it is necessary to advert to the fact that there is reason to doubt the accuracy of some of the returns. The principal factor in non-pulmonary deaths is meningitis and it has been the practice to classify deaths under this heading as due to tuberculosis only when the certifying physician specifies "tuberculous meningitis." One feels reasonably sure that a good many deaths certified simply as meningitis are probably tuberculous in origin; but here again the important fact is that it is the *trend* which matters most.

Table 29.—Deaths from non-pulmonary Tuberculosis arranged into sex and age groups.

Year	Sex	All Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
1932	M	22	5	5	2	5	1	2	2	—	—
	F	13	—	1	1	2	5	—	2	2	—
1933	M	11	1	4	1	2	1	1	—	1	—
	F	9	3	1	4	—	—	—	1	—	—
1934	M	8	—	4	—	1	—	2	1	—	—
	F	13	2	4	1	2	2	1	1	—	—
1935	M	14	1	4	2	2	1	3	1	—	—
	F	16	—	4	4	1	2	4	—	1	—
1936	M	13	1	4	2	—	2	2	—	2	—
	F	7	3	1	—	2	—	1	—	—	—
1937	M	13	2	3	1	2	1	1	—	2	1
	F	11	—	3	2	1	2	1	—	—	2
1938	M	5	—	1	1	1	1	—	1	—	—
	F	8	—	2	2	—	—	2	—	—	2
1939	M	9	—	5	—	1	1	—	2	—	—
	F	5	—	4	1	—	—	—	—	—	—
1940	M	15	—	6	4	1	2	—	2	—	—
	F	14	3	2	2	1	1	1	2	1	1
1941	M	11	1	1	3	2	3	1	—	—	—
	F	9	1	2	1	2	—	1	—	2	—
1942	M	8	1	3	1	—	1	—	1	—	1
	F	11	2	3	1	2	—	—	1	1	1
1943	M	13	3	4	1	4	1	—	—	—	—
	F	10	—	5	2	1	—	1	—	—	1
1944	M	10	2	6	1	—	—	—	—	—	1
	F	17	2	4	4	1	—	1	2	2	1

Table 30.—Non-pulmonary tuberculosis. Analysis of certified deaths, shewing same distributed into sex and age-groups, from 1932 to 1944 (inclusive).

Cause of Death	Sex	All Ages	Under 1 Yr.	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
Meningitis ...	M	69	9	32	10	11	3	2	2	—	—
	F	69	11	26	18	7	3	3	1	—	—
Peritonitis ...	M	20	3	8	2	2	1	3	—	1	—
	F	13	2	3	—	2	1	3	1	—	1
Bone and Joint ...	M	17	—	2	3	3	3	2	1	2	1
	F	23	—	—	6	4	3	2	1	3	4
Genito-urinary ...	M	10	—	—	—	—	4	3	3	—	—
	F	3	—	—	—	—	1	1	1	—	—
Abdominal ...	M	8	—	3	1	1	1	—	1	1	—
	F	9	2	3	—	—	1	1	—	1	1
Generalised Tuberculosis ...	M	15	2	4	1	4	2	2	—	—	—
	F	8	1	1	1	—	2	1	1	1	—
Supra-renal Gland	M	6	—	—	—	1	1	—	2	1	1
	F	6	—	—	—	—	—	1	2	1	2
Miscellaneous ...	M	8	3	1	1	—	—	—	2	—	1
	F	11	—	3	—	1	—	2	2	1	2

The preponderant role of meningitis in deaths from non-pulmonary tuberculosis is again apparent in this aggregate table accounting for nearly half the deaths in the period of thirteen years covered by it. It will be noted that the earlier years are those most affected. The other forms of non-pulmonary tuberculosis are more evenly distributed.

Table 31.—Tuberculosis (all forms). Comparative Statement of annual death rates.

Year	Éire	Cork	Dublin	Limerick	Waterford
1936	1.17	1.29	1.59	1.40	1.57
1937	1.23	1.48	1.59	1.49	1.57
1938	1.09	1.38	1.47	1.10	1.32
1939	1.13	1.23	1.48	1.27	1.25
1940	1.25	1.54	1.63	2.05	1.43
1941	1.24	1.38	1.56	1.58	1.40
1942	1.47	1.57	1.90	2.12	1.65
1943	1.46	1.69	1.84	1.95	1.86
1944	1.30*	1.92	1.60*	2.10*	1.40*

*These figures are taken from the Annual Summary of the Registrar General and are subject to correction.

The causes of the increased deaths noted in previous years were closely examined in the light of recent information. So far as the figures for the current year are concerned little can be added to the remarks made in the appropriate reports. Once again the great bulk of deaths occur in the age group between 15 and 45 years. This tendency has been characteristic for many years as will be seen in table 28. The actual figures for the last eight years were as follows. These figures refer to pulmonary deaths only.

	15/25	25/35	35/45	45/55	55/65
1937	19	19	23	17	13
1938	16	27	23	24	6
1939	21	10	19	22	10
1940	24	22	24	13	10
1941	13	21	26	18	10
1942	26	22	19	21	9
1943	19	25	22	17	15
1944	24	30	24	15	15

It will be noted that the main increase has occurred in the two groups comprised between the years 15 and 35, the other groups remaining more or less stationary. Subdivision into sex groups (as shewn in the next table reveals a marked increase in male deaths in the 15/25 group (with a slight reduction in female deaths), in the 25/35 group, on the other hand, there is an equally reduced number of male deaths and a very marked increase in female deaths. In these two groups, comprising the years 15 to 35 the female deaths are much in excess of the males. In the remaining three groups deaths of males distinctly exceed those of females.

Year	15/25		25/35		35/45		45/55		55/65	
	M	F	M	F	M	F	M	F	M	F
1937	9	10	10	9	13	10	13	4	8	5
1938	12	4	12	5	13	10	17	7	4	2
1939	10	11	6	4	13	6	16	6	6	4
1940	12	12	9	13	10	14	9	4	8	2
1941	8	5	11	10	12	14	9	9	6	4
1942	9	17	13	9	12	7	15	6	5	4
1943	4	15	15	10	14	8	14	3	9	6
1944	12	13	9	20	16	8	11	4	7	8

The more one is confronted with figures such as these the more it becomes apparent that the chief efforts of a campaign against tuberculosis must be centered on the younger age groups and in particular the female sex. The various factors concerned were examined in my

1942 report and, taken in conjunction with the findings of Laidlow and McFarlane (1) and those of Picken (2) it is clear that the psychological approach must not be neglected. Physiologically and socially there is no doubt that the period from 15 to 25 years is a very dangerous one for females. The strain imposed by the onset of puberty coupled with the changing outlook on life with its attendant social demands throws a strain on the organism which it has not hitherto experienced with result, in many cases, that the natural resistance of the body becomes lowered to a point incompatible with the maintenance of health. Taking into consideration the social tendencies of large masses of the population it is clear that this is the background to most of the cases of adolescent tuberculosis which continue to take a high toll of life at these ages. The role of tuberculosis as a cause of death at these ages is clearly brought out in table 32 in which the proportion of deaths from this cause has been worked out in relation to deaths from all causes.

1. Laidlow, S., and McFarlane, D., *Brit. Med. Jour.* 27th Sept. 1941.
2. Picken, R. M. *Public Health*, April, 1942.

Table 32.—Proportion of Deaths from Tuberculosis (all forms) to Deaths from all causes in 1943.

Age Group	No. of Deaths (all causes)	Deaths from Tuberculosis	Proportion
0/1	187	5	2.6 per cent.
1/5	81	11	13.6 " "
5/15	18	6	33.3 " "
15/25	35	25	71.4 " "
25/35	56	30	53.5 " "
35/45	68	25	36.7 " "
45/55	115	17	14.8 " "
55/65	193	17	8.8 " "
65 and over	597	9	1.5 " "
Totals ...	1350	145	10.7 per cent.

Here we see that at all ages tuberculosis causes approximately 10 per cent. of all deaths, that the proportion rises steadily from the earlier years to a maximum of 71 per cent. at 15/25, that in the 25/35 group it accounts for 53 per cent. and that at later ages it declines steadily. We can see then what a substantial saving of life might be effected by a reduction of deaths from tuberculosis at these ages. At ages 15 to 35 practically 68 per cent. of all deaths were due to tuberculosis, in males, the most productive industrial years and in females the child-bearing period. The actual mortality rates from tuberculosis in the various age groups for males and females, together with the combined rates, have been worked out in table 33. The figures on which these rates are based are taken from the Register of Population, 1941.

Table 33.—Deaths from Tuberculosis (all forms) divided into age and sex groups with the rates per 1,000 in each group, for the year 1944.

Age Group	MALES			FEMALES			PERSONS		
	Num- ber in Group	Deaths	Rate per 1000	Num- ber in Group	Deaths	Rate per 1000	Num- ber in Group	Deaths	Rate per 1000
0/1	757	2	2.64	778	3	3.85	1535	5	3.25
1/5	3047	7	2.29	2925	4	1.36	5972	11	1.84
5/15	7104	1	0.14	7115	5	0.70	14219	6	0.42
15/25	6151	11	1.78	7469	14	1.87	13620	25	1.83
25/35	4776	10	2.09	6723	20	2.97	11499	30	2.61
35/45	4111	16	3.89	5399	9	1.06	9510	25	2.62
45/55	3391	11	3.24	4204	6	1.42	7595	17	2.23
55/65	2967	7	2.36	3643	10	2.74	6610	17	2.57
65 and over	2621	6	2.28	3653	3	0.82	6274	9	1.32
Totals	34,925	80	2.00	41,909	65	1.55	76,834	145	1.88

This table was published for the first time in last year's report. In comparison with the previous table we note an increase in the rate in the 0/1 group from 1.92 to 3.25 per 1,000, but the population at risk in this group is relatively small and the rate represents an actual increase of only 2 deaths. We note again the preponderance of deaths in the 15/35 group and the high rate for males (3.89 per 1,000) in the 35/45 group.

The figures outlined above give a fairly comprehensive picture of our tuberculosis problem and there remains to be considered the best means of dealing with it. During the past year I had occasion, at the request of the Corporation, to draft a report on the measures best calculated to reduce the incidence of the disease. The substance of that report is now incorporated herewith.

An effective programme for tuberculosis control must aim at the prevention of the disease by the most direct methods possible. It must provide for the discovery, treatment and isolation of *open* cases and must include a plan of social assistance. The principal points to be included in such a plan may be summarized as follows :

1. The isolation of all known cases of pulmonary tuberculosis, continuing isolation as long as the cases remain infective.
2. Adequate medical care, preferably in institutions, for the known cases of tuberculosis which are active but not infective. These are the cases which are most likely to become infectious in the immediate future.

3. More vigorous methods to find cases of tuberculosis earlier and to bring them promptly under medical care and under isolation if they are infectious.
4. Special protection, including medical observation and advice, and financial assistance as needed, for those groups who, though not at the time suffering from tuberculosis, are most especially endangered. This refers particularly to immediate contacts of open cases.
5. A vigorous educational campaign, directed towards eliminating as far as possible sources of infection.

The isolation of *known open* cases is placed first because it is the most direct method we have for reducing the prevalence of tubercle bacilli in our surroundings. It is the measure, which, applied to the smallest number of persons gives the maximum of protection to the community. It is also one of the measures at present often neglected or compromised by makeshift attempts at home isolation. But the broader reason for giving first place to the isolation of open cases is that if carried out thoroughly it leads up to all the other measures indicated. For it is in the household associates of the open case that the search for additional cases should begin, with the certainty of finding some that are in need of medical care.

So far as we are concerned we have not hitherto experienced much difficulty in procuring beds in sanatoria and hospitals when the need has arisen, but what has militated against more extensive isolation of open cases has been the unwillingness, in many cases, of the patients to remain sufficiently long in institutions or their inability to do so. Taking the latter point first ; two factors mainly are concerned, economic and domestic. In the case of bread-winners the natural anxiety as to the welfare of dependents has militated greatly against prolonged isolation. In the case of married women anxiety for the moral as well as the physical welfare of the children has been the determining factor.

There is no doubt whatever that the complete isolation of all infectious cases is the greatest single measure we can undertake for the elimination of tuberculosis and if we are to ensure that our methods are thoroughgoing we must face up to the factors which have militated against it. In the two cases just referred to the sources of anxiety must be removed. In other words, some form of financial assistance must be afforded to the dependents in order to secure the adequate isolation of the bread-winner. It is scarcely necessary to labour the point beyond suggesting that such a measure will tend to secure the peace of mind of the individuals concerned and so encourage more prolonged stay in hospital or sanatorium. If prevention of tuberculosis is the aim, nowhere is generous financial aid more urgently needed or better justified than in the families of the tuberculous poor who bear the double risk of intimate exposure to the tubercle bacillus and of poverty.

As regards the other type of case—the individual who, without adequate reason refuses to go into an institution or to remain sufficiently long there, we have here an acute problem that must be dealt with. These are the reservoirs of infection which continue to spread the disease amongst the community and, if the people are to be protected, it seems clear now that compulsory powers for isolation must be obtained. Such powers exist in regard to other diseases and they have been adopted in many places in relation to tuberculosis. There is no conflict of opinion as to the prime importance of isolation of all known open cases of the disease if tuberculosis is to be eradicated. The knowledge which has been acquired as to the spread of the disease makes this self-evident and if the available means are insufficient to procure it it is obvious that the necessary powers should be obtained.

Assuming, on the one hand, that such powers became available and, on the other, that the necessary financial assistance was forthcoming for those willing to undergo the necessary prolonged periods of isolation, it is apparent that there will have to be greatly extended institutional accommodation. The beds available are barely sufficient to meet our present limited needs which apply only to those who are willing to accept and keep up institutional treatment.

The second and third points outlined above envisage an extension of our present services. One of our greatest difficulties arises from the fact that, in the great majority of cases, patients when first coming to our notice are already in an advanced stage. The insidious onset of the disease is, no doubt, largely responsible for this state of affairs. The affected individual does not notice anything at first and generally it is well advanced before medical advice is sought. In order to secure prompt and thorough investigation of all doubtful cases it would be advisable to procure beds in local hospitals where such cases could be kept under close observation. This would serve a double purpose. It would help the individuals concerned and it would afford a training to the future doctors of the country in the investigation and detection of early tuberculosis, a service to the country of the first importance.

One of our principal difficulties at present is in procuring the co-operation of contacts in the matter of observation and supervision. In the case of young children this difficulty is not very great, the real problem arises in connection with adolescents, the very group most at risk. I have pointed out that the mortality from tuberculosis falls most heavily upon the group aged from 15 to 35 years, and particularly on young females between 15 and 25. This indicates the necessity for medical inspection of boys and girls attending Vocational schools. From the point of view of early detection of tuberculosis, medical inspection is, in fact, more necessary for this group than it is for elementary school children. The incidence of the disease in the latter group is almost negligible, but the case is quite the reverse among adolescents. I would recommend at least three medical inspections for this group, at entrance, at the middle of the course and again on leaving; particular attention being paid to known contacts of open cases.

In this instance mass radiography naturally suggests itself and I believe it will prove a very useful measure in detecting early and unsuspected lesions. Having passed out from the vocational schools these boys and girls will gravitate into various employments being still at the dangerous age so far as tuberculosis is concerned, particularly in the case of factory work, suggesting a further extension of mass radiography to groups of young adults in factories and other places where large numbers are employed. Mass radiography, however, will not be of much use unless adequate bed accommodation be available.

Tuberculin testing also suggests itself as a most useful measure in the case of adolescents, special care being paid to those who are known to be negative. From this point of view, the extensive tuberculin survey being undertaken in this locality by the Irish Red Cross Organisation has everything to recommend it and parents are earnestly advised to avail of the service placed at their disposal. The records which are now being made should be of great value to any future medical service in the Vocational Schools.

These measures envisage a considerable expansion in the tuberculosis service and to meet them it will be necessary in the near future to expand the work of the tuberculosis department. Already there is evidence of a considerable strain on our available resources. This has been brought about especially by the administration involved in the distribution of free nourishment, clothing and beds to tuberculous patients. The intensive following up of contacts, the search for early cases, the supervision of adolescents in the vocational schools and the organisation of mass radiography will almost certainly necessitate an increase in the personnel of the department. The time seems to be approaching when this branch of the public health service should be made more or less self-contained with its own technical and clerical staff.

One of our most pressing needs is the provision of a hospital for the treatment of surgical tuberculosis. At present children suffering from this disease have to be sent either to Cappagh, Co. Dublin, or to Coole, Co. Westmeath. We have not had much difficulty in obtaining admission of cases to the latter institution, but it involves a good deal of hardship especially on the relatives of patients having the children removed so far. In the case of adults we have experienced the greatest difficulty in obtaining specialised treatment. Outside Dublin there is no hospital specialising in orthopaedic work, accordingly the number of beds is strictly limited and long delays are incurred before patients come under treatment. The lack of a special orthopaedic hospital in this area may be due to the natural reluctance of young medical men to embark on specialist careers. No doubt in a relatively small community such as ours there is a definite risk attached to such a course, but I have no hesitation in saying that there will be a wide field in this department of medicine in the near future. There is a most pressing need for such a service so that any scheme for developing or extending our hospital services should be made to include a special orthopaedic department.

On the social side I have already stated the case for financial assistance to dependents and I believe this to be of great importance in the complex fight against tuberculosis. There is also a great need for further expansion in the provision of houses. Many of our cases are living under very bad conditions indeed, so much so that we have been very much hindered in the distribution of beds because there is no room to accommodate them. If a case of tuberculosis must be kept at home the ideal is a single room for the patient, failing this he should at least have his own bed. The adverse circumstances in which we find ourselves may be estimated from the fact that we have so many patients who are not able to avail of the beds which we are prepared to give them. As I have already remarked home isolation is, at best, merely a makeshift in many cases, but we should be in a position to make the most of such circumstances.

Finally, it is necessary to refer to the necessity of an educational campaign against spitting and coughing in public. I regard this as of such importance that I have been continually stressing it in these reports. I referred to it especially in the report for the year 1943 and as the occasion now seems appropriate I reproduce what I had to say about the practice on that occasion. Taking all the relevant facts into consideration there still remains the one fundamental point that the disease is transmitted from the sick to the healthy by the habit of indiscriminate coughing and spitting. This is a practice that will have to be abolished if we are to make any headway against the disease and the sooner the public is made aware of this simple fact the better for all concerned. When one takes into consideration that a great many diseases other than tuberculosis are spread through the same agency the urgency of this question becomes even more evident. The fact that there is ample experimental evidence that the very simple action of covering the mouth with a handkerchief during coughing or sneezing will eliminate 95 per cent. of infection from this source makes it difficult to understand the slowness in bringing this knowledge before the public. Spitting is, of course, inexcusable. There is no need here to go into the mechanics of the spread of infection from this source. It should be sufficient to point out that it is in fact a revolting and disgusting habit and that the only means of abolishing it is by creating so strong a public feeling against it that it will eventually cease. This can only be done by education.

NOTIFICATIONS.

The number of notifications received during the year was 173. Prior to 1930 such notifications were for the period from the 1st April to 31st March following. Notifications for previous years were as follows :

1925-26	...	110	1935	...	154
1926-27	...	108	1936	...	154
1927-28	...	73	1937	...	166
1928-29	...	116	1938	...	147
1929-30	...	179	1939	...	128
1930 (April-Dec.)	...	133	1940	...	114
1931	...	196	1941	...	173
1932	...	136	1942	...	159
1933	...	164	1943	...	173
1934	...	112	1944	...	161

In the following table notifications, from the year 1930, have been analysed as to age and sex distribution.

Table 34.—Notifications of Tuberculosis distributed according to Sex and Age.

Year	Total	Sex	All Ages	Under 5 yrs	5-15	15-45	45-60	60 and up
1930	133	M	77	4	11	50	11	1
		F	56	5	11	37	2	1
1931	196	M	114	9	24	64	15	2
		F	82	7	19	53	3	—
1932	136	M	71	5	11	42	11	2
		F	65	1	6	48	7	3
1933	159	M	89	5	10	59	14	1
		F	70	5	8	48	8	1
1934	112	M	43	1	6	26	9	1
		F	69	4	10	41	9	5
1935	154	M	83	7	14	43	14	5
		F	71	5	15	40	7	4
1936	154	M	76	9	10	33	16	8
		F	78	3	12	55	6	2
1937	166	M	91	5	10	47	25	4
		F	75	2	10	52	5	6
1938	147	M	78	4	6	52	15	1
		F	69	4	10	49	5	1
1939	128	M	60	5	9	33	10	3
		F	68	3	3	54	6	2
1940	114	M	56	1	6	35	14	—
		F	58	5	4	41	6	2
1941	173	M	90	8	13	48	19	2
		F	83	8	14	51	7	3
1942	159	M	80	8	13	43	16	—
		F	79	3	18	48	6	4
1943	173	M	83	1	14	45	14	9
		F	90	1	10	66	10	3
1944	161	M	76	2	10	83	16	10
		F	85	6	18	50	3	8

The number of home visits made by the Tuberculosis Nurse was 569.

SPUTUM EXAMINATIONS.

Examinations of specimens of sputum is carried out in the laboratory attached to the Tuberculosis Clinic. 325 such specimens were examined during the past year, of which 67 were found to contain tubercle bacilli.

while 258 were negative. Of the 325 specimens examined 44 were submitted by medical practitioners. The following table shows the number of specimens examined, and the results obtained during the past nine years.

Year	Total	Positive	Negative
1931	375	90	285
1932	440	94	346
1933	502	118	384
1934	519	121	398
1935	512	94	418
1936	467	93	374
1937	511	73	438
1938	336	49	287
1939	228	51	177
1940	336	88	248
1941	276	68	208
1942	295	81	214
1943	277	61	216
1944	325	67	258
Totals ...	5399	1148	4251

Where tubercle bacilli exist in very small numbers the usual direct examination of specimens may not be sufficient to demonstrate their presence and a more elaborate technique becomes necessary. This technique consists of digestion of the specimen (with caustic soda) in an incubator at body temperature, centrifugalisation, neutralisation of the deposit and culture on a selective growth medium. The medium we are using at present is Lowenstein's. A typical culture appears in three to four weeks. Cultural methods, with other lines of investigation, are demanded when we wish to find out that arrest of disease has taken place and this method along with animal inoculation must be regarded as the supreme test of active tuberculous infection. All the examinations recorded in the above table were examined by the ordinary routine Ziehl-Nielson staining method. The newer method of examining for tubercle bacilli was used by us for the first time in 1945 and up to the time of preparation of this report four specimens were dealt with.

CLASSIFICATION OF NEW CASES.

As in former years the new cases dealt with at the Tuberculosis Dispensary who presented signs of advanced disease was disproportionately high. 64 per cent. of such were found to be in Stage III. and 12 per cent. in Stage II.; in other words, no less than 76 per cent. of the new cases were suffering from definitely established disease recognisable by ordinary clinical methods. These figures are similar to those of former years and must be regarded with considerable dissatisfaction, as little or nothing can be done in regard to the treatment of such advanced cases apart from palliative methods. The main factor in the production of this state of affairs appears to be the failure of patients to seek treatment sufficiently early.

At a conference of Tuberculosis officers held in Dublin early in the year a new method of classification was adopted according to which cases were graded, in the first instance, into those in which tubercle bacilli could not be detected in the sputum and those who had positive sputum. The latter are further subdivided into grades corresponding to those previously recognised. According to the new classification the stages found on the examination of new cases were as follows :—

Sputum Negative	...	...	20 per cent.
Sputum Positive—Stage I.		...	4 „ „
„ „ Stage II.		...	12 „ „
„ „ Stage III.		...	64 „ „

The fact that 20% of the new cases were classified as sputum negative does not necessarily mean that all these were good cases for treatment or that the disease was of little extent. While specimens from some were examined and found negative others had no sputum for investigation. Treatment is not withheld from patients who come under this category for the diagnosis can usually be clearly established by other methods of approach. The examination of the sputum remains, however, the most valuable aid we possess in the diagnosis of the disease, the estimation of risks to which contacts are exposed and the assessment of progress of the patient.

The cases reported as sputum negative were made up of :—

- (a) Cases of tuberculous pleural effusion.
- (b) Cases who came on transfer under our scheme after treatment elsewhere.
- (c) Cases who had X-Ray evidence of infiltration in which there was doubt whether complete arrest had taken place, and
- (d) Cases of advanced disease of a miliary type.

In all these categories but the last the probable behaviour of the disease is regarded at the outset as favourable. (a) Tuberculous pleural effusion needs the rigorous care that all cases of pulmonary tuberculosis require. (b) Cases who come under treatment to us with a negative sputum and a history of treatment elsewhere are regarded as quiescent and if treatment is persevered in there is every prospect of final arrest of the disease. These cases have shewn a favourable response to treatment and immunity to the disease is becoming established. (c) The third category requires careful review. They represent the type of case that may be uncovered by the mass radiological survey of healthy groups and it is the business of the tuberculosis officer to decide whether these cases are active or not. (d) The miliary group represents a condition of widespread disease in the body. The lungs are involved with other organs in a blood borne dissemination which arises as a result of an escape of a lethal dose of bacilli into the blood stream. These cases as a rule die of intense toxæmia before the lung lesions break down to excrete the organisms.

Twenty-four cases were sputum negative, of these four cases came under the last category.

The following table, which is introduced for comparative purposes, gives the corresponding proportions for previous years.

Table 35.—Showing the proportion of early, moderately advanced and advanced cases attending the Tuberculosis Clinic for the first time (1930 to 1943).

TYPE	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
Stage I. (Early)	15%	8%	9%	6%	14%	13%	6%	9%	5%	8%	6%	3%	4%	9%
Stage II. (Moderately Advanced)	36%	50%	38%	39%	28%	30%	43%	38%	33%	32%	44%	46%	34%	44%
Stage III. (Advanced)	49%	42%	53%	55%	58%	57%	51%	53%	62%	60%	50%	51%	62%	47%

PROVISION OF EXTRA NOURISHMENT, CLOTHING, Etc.

In a Departmental letter (P.H. circular 53/43) dated 31st March, 1943, the principal provisions of which are outlined below, the Minister approved for recoupment from the National Tuberculosis Grant of:—

- Free allowance of extra nourishment in the form of eggs, butter and milk to patients while they are awaiting admission to institutions or following discharge after an approved term of institutional treatment. Allowance per patient not to exceed : $3\frac{1}{2}$ pints of milk, $\frac{1}{2}$ -lb. of butter, 7 eggs per week.
- A separate bed and, where necessary, bedding for infective patients receiving domiciliary or dispensary treatment. Expenditure by the L.A. should not exceed £4 in any one case (this amount was subsequently raised to £15).
- In the case of necessitous patients undergoing treatment in institutions, suitable clothing if such be necessary to derive the full benefit of treatment.

The following particulars relate to the number of persons who benefitted under the scheme during the year :

Number of Recipients	Amount Spent
<i>Extra Nourishment</i> —67	£368 17 0
<i>Clothing</i> —73	£282 13 8
<i>Beds and Bedding</i> —6	£65 12 6

ADMINISTRATION.

The routine administrative work of the Tuberculosis Dispensary is summarised in the following paragraphs.

The number of new patients examined at the Tuberculosis Dispensary during the year amounted to 392, of whom 209 were adults and 183 children. 73 of the adults and 35 of the children were found to be suffering from tuberculosis in one form or another and appropriate treatment was afforded.

The number of cases admitted to sanatorium during the year was as follows :—

		Males	Females	Total
Insured ...	...	17	8	25
Uninsured	...	2	11	13
Children ...	...	—	—	—
<hr/>				
Total ...	...	19	19	38

The number of patients discharged from sanatorium during the year was as follows :

		Males	Females	Total
Insured ...	...	14	6	20
Uninsured	...	4	9	13
Children ...	...	—	—	—
<hr/>				
Total ...	...	18	15	33

Advanced cases who are not likely to derive benefit from sanatorium treatment who cannot receive adequate treatment in their own homes are admitted to St. Patrick's Hospital and St. Joseph's Hospital. This following cases were admitted during the year :—

		Males	Females	Total
Insured ...	...	35	9	44
Uninsured	...	22	37	59
<hr/>				
Total ...	...	57	46	103

The following cases died or were discharged from these Institutions.

		Males	Females	Total
Insured ...	...	37	13	50
Uninsured	...	18	33	51
<hr/>				
Total ...	...	55	46	101

X-RAY EXAMINATION.

71 X-Ray examinations were carried out during the year. The form of examination is utilised for the most part in connection with cases presenting doubtful diagnostic features. All cases of bone and joint disease are subjected to X-Ray examination as routine. The method is also availed of very largely in connection with artificial pneumothorax treatment not only for the purpose of estimating, in the first instance, whether cases are suitable or not but, at a later stage to judge the progress which they are making.

ARTIFICIAL PNEUMOTHORAX.

Ten new cases received artificial pneumothorax treatment during the year. These cases had their induction carried out at Heatherside Sanatorium by the R.M.S. Eleven cases are having refills and management at the Tuberculosis Clinic. Routine X-Ray examinations are made at the North Infirmary by arrangement with Dr. J. Fielding, Radiologist. The number of cases treated during the year was fifteen. 209 refills were given and 47 X-Ray examinations were made in connection with the treatment.

INSTITUTIONAL TREATMENT.

In the tables which follow statistical details are given of the various institutions which have been utilised for the treatment of our cases during the past year. Early and moderately early cases of pulmonary disease have, almost all, been referred to the Cork Sanatorium at Heatherside.

Table 36.—Particulars of patients who received sanatorium treatment during the year.

	Under treatment on 1st. Jan. 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec. 1944	No. of Cases treated during the year
Insured Males ...	7	16	13	10	23
„ Females ...	2	8	6	4	10
Uninsured Males ...	3	2	4	1	5
„ Females ...	2	11	9	4	13
Ex-Service men ...	1	1	1	1	2
Male Children ...	—	—	—	—	—
Female Children ...	—	—	—	—	—
Totals ...	15	38	33	20	53

Table 37.—Particulars of cases treated at Cork District Hospital.

	Under treatment on 1st. Jan. 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec., 1944	No. of Cases treated during the year
Male Adults ...	3	24	22	5	27
Female Adults ...	5	20	21	4	25
Male Children ...	3	7	8	2	10
Female Children ...	2	14	12	4	16
Totals ...	13	65	63	15	78

Table 38.—Particulars of patients treated in St. Patrick's Hospital during 1944.

		Under treatment on 1st. Jan. 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec. 1944	No. of Cases treated during the year
Insured Males	...	8	19	19	8	27
" Females	...	3	3	3	3	6
Uninsured Males	...	4	16	14	6	20
" Females	...	2	18	15	5	20
Ex-Servicemen	...	4	3	6	1	7
Male Children	...	—	1	1	—	1
Female children	...	—	1	1	—	1
Totals	...	21	61	59	23	82

Table 39.—Particulars of cases treated in the North Infirmary during 1944.

		Under treatment on 1st. Jan. 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec., 1944	No. of Cases treated during the year
Male children	...	1	1	1	1	2
" adults	...	—	—	—	—	—
Female children	...	—	1	1	—	1
" adults	...	—	—	—	—	—
Totals	...	—	2	2	1	3

Table 40.—Particulars of cases treated in the South Infirmary during 1944.

		Under treatment on 1st Jan., 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1944	No. of Cases treated during the year
Male children	...	—	7	6	1	7
" adults	...	1	—	1	—	1
Female children	...	—	4	4	—	4
" adults	...	—	2	2	—	2
Totals	...	1	13	13	1	14

Table 41.—Particulars of cases treated in St. Mary's Open-Air Hospital, Cappagh, Co. Dublin.

	Under treatment on 1st Jan., 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1944	No. of Cases treated during the year
Female children ...	—	—	—	—	—
Male children ...	—	—	—	—	—
Totals ...	—	—	—	—	—

Table 42.—Particulars of cases treated at St. Joseph's Hospital, Mount Desert, during 1944.

	Under treatment on 1st Jan., 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1944	No. of Cases treated during the year
Insured Males ...	4	13	12	5	17
„ Females ...	6	6	10	2	12
Uninsured Males ...	3	4	3	4	7
„ Females ...	4	17	17	4	21
Male children ...	—	1	—	1	1
Female children ...	—	1	—	1	1
Totals ...	17	42	42	17	59

Table 43.—Particulars of cases treated at Coole Open-Air Hospital Co. Westmeath.

	Under treatment on 1st Jan., 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1944	No. of Cases treated during the year
Male children ...	4	—	2	2	4
Total ...	4	—	2	2	4

Table 44.—Particulars of cases treated at Mercy Hospital.

	Under treatment on 1st Jan., 1944	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1944	No. of Cases treated during the year
Male Adults ...	—	—	—	—	—
„ Children ...	—	2	1	1	2
Female Adults ...	—	—	—	—	—
„ Children ...	—	—	—	—	—
Totals ...	—	2	1	1	2

In 1943 an X-Ray Screen was added to the equipment of the clinic. This apparatus, which enables the Tuberculosis Officer to visualise the lung fields has been a very great help.

Screen examinations of the lungs are made :—

- (1) To define the extent of lung involvement by disease.
- (2) To observe the progress of cases undergoing artificial pneumothorax treatment.
- (3) To help in the examination of those who have been in contact with tuberculous patients.

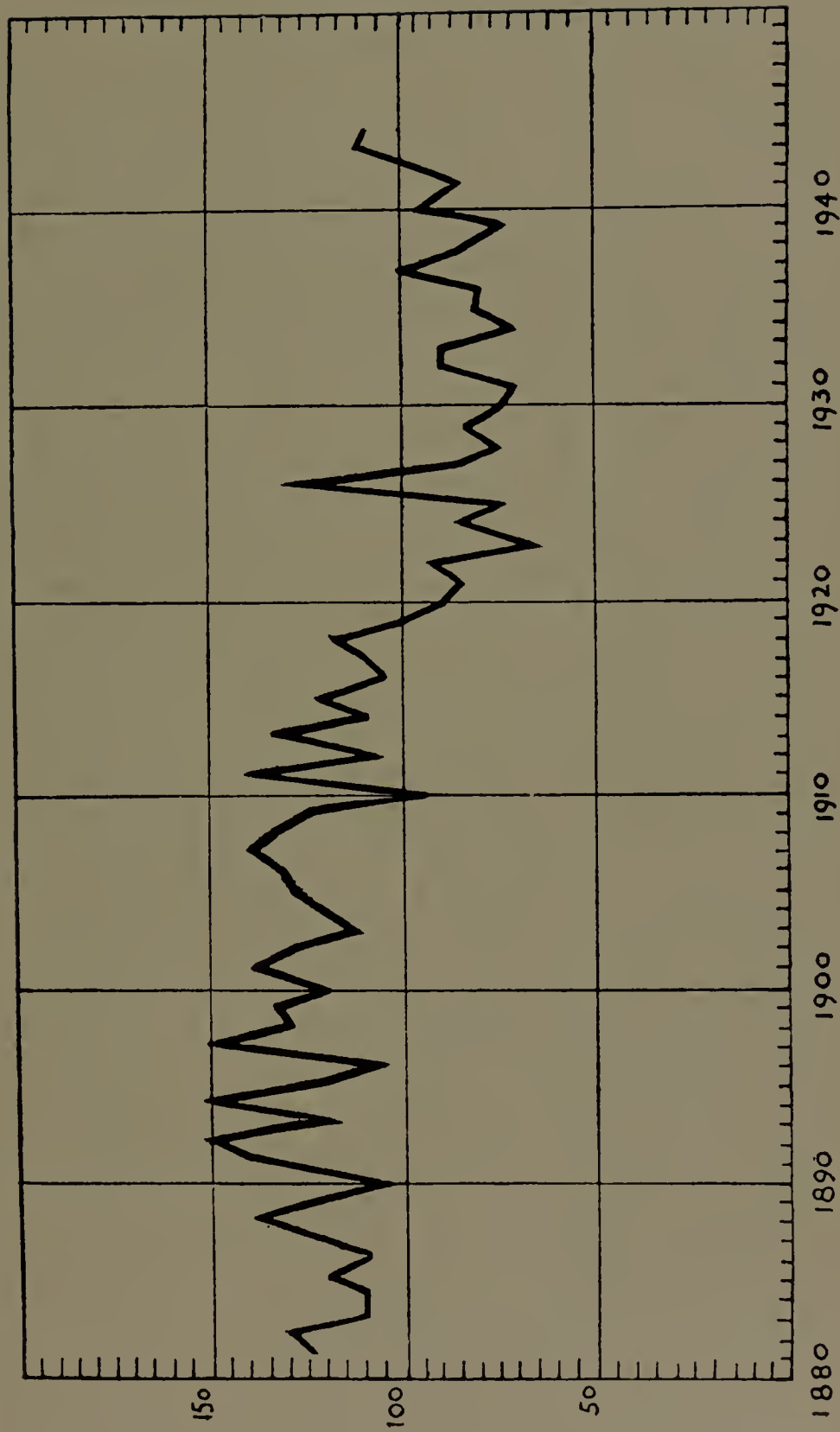
It is scarcely necessary to add that the approach to diseases of the chest cannot be regarded as competent unless an X-Ray examination is made. The methods of examination of the lungs at our disposal other than X-Rays are not sufficiently sensitive to define the extent of the tuberculous disease. In many cases they are not sufficient to detect the disease at all.

The number of screen examinations made during the year was 643.

Table 45.—Return of number of patients treated under the Tuberculosis Scheme, during the year ended 31st December, 1944.

	Pulmonary Tuberculosis			Non-Pulmonary Tuberculosis			Total
	Children under 15 years	Other Persons		Children under 15 years	Other Persons		
		Males	Females		Males	Females	
1.—Insured Patients :							
(i) No. remaining under treatment							
(a) On 1st Jan., 1944 ...	—	69	37	—	1	2	109
(b) On 31 Dec., 1944 ...	—	71	24	—	1	2	98
(ii) No. of new patients treated during year ...	—	46	17	—	1	—	25
(iii) No. of cases under observation at close of year 1944 ...	—	3	1	—	1	—	5
2.—Other Patients :							
(i) No. remaining under treatment							
(a) On 1st Jan., 1944 ...	2	40	58	59	6	13	178
(b) on 31st Dec., 1944 ...	8	23	50	37	3	10	131
(ii) No. of new patients treated during year ...	7	17	53	44	2	6	129
(iii) No. of cases under observation at close of year 1944 ...	2	2	3	1	—	—	8

FIG. VI.—INFANT MORTALITY. FROM 1880 TO PRESENT.



Section IV.

Maternity and Child Welfare.

(A) INFANT MORTALITY.

The number of deaths of infants under one year of age amounted to 188, which is equivalent to an infant mortality rate of 108 per 1,000 live births. The corresponding figures last year were 196 and 113 per 1,000 respectively. The principal contributory causes were as follows:—

Diarrhoea and Enteritis	...	...	...	63
Premature birth and congenital debility			...	43
Broncho-pneumonia	...	...	...	21
Whooping cough	...	...	...	17
Marasmus	...	...	...	8
Congenital syphilis	...	...	...	7
Tuberculosis	...	...	...	6
Convulsions	...	...	...	4

It is to be noted that the figures assigned to the causes tabulated above do not agree in all cases with the corresponding figures in other parts of this report but it is claimed for them that they are as nearly accurate as it has been possible for us to make them. They are the result of an analysis of special reports made by the nursing staff of the Child Welfare Department in which each infant death has been the subject of a special enquiry. The findings of this enquiry have made it necessary to change the assigned cause of death in many instances, this has been the case especially in regard to whooping cough. Several deaths has been assigned simply to such conditions as bronchitis and broncho-pneumonia but on enquiry yielded a history of pre-existing whooping cough. It is clear that the latter was the primary cause of death in such cases and the necessary transfer to the appropriate heading has been made. Similarly transfers have been made from "marasmus" to such headings as congenital syphilis, gastro-enteritis and tuberculosis. In this respect it may therefore be said that the figures in this section represent a more accurate picture of the factors concerned in infant mortality than do those enumerated in Table 5 which are based entirely on the causes of death assigned in the death certificates.

Gastro-enteritis, it will be noted, has been the principal cause of infant mortality. This is not usual and in the fourteen years during which these figures have been compiled it has taken precedence of the triad (prematurity, congenital debility and congenital malformations) on three previous occasions only (1935, 1940 and 1942). *Whooping-cough* took a relatively heavy toll of infant life during the past year, accounting for 17 of the infant deaths. There was a severe epidemic of this disease during which 217 cases were notified. For the first time *congenital syphilis* figured in the death returns in significant numbers. The proportion of neo-natal to all infants' deaths reverted to a more normal relationship (31 per cent.) than it assumed in the previous year, in which it accounted for 46 per cent. of the total. The enquiry into the antecedent factors in infant mortality which was instituted in 1943 was continued last year. Reference to the appropriate tables shews what an important bearing *artificial feeding* has had on this problem.

Table 46.—Infant Mortality, Cork City, Éire, and England and Wales from 1881.

Year	Cork	Éire	E. & W.	Year	Cork	Éire	E. & W.
1881	124	89.4	139	1913	136	93.1	108
1882	127	94.9		1914	119	81.0	105
1883	109	95.0		1915	132	85.2	110
1884	110	91.9		1916	105	81.3	91
1885	120	91.3		1917	108	84.0	96
1886	110	93.9	145	1918	118	80.2	97
1887	123	93.6		1919	100	84.4	89
1888	139	96.0		1920	79	77.5	80
1889	125	92.0	144	1921	76	72.6	83
1890	106	91.6	151				
1891	138	91.4	149	1922	93	68.9	77
1892	150	99.9	148	1923	66	66.4	69
1893	132	99.8	159	1924	87	71.6	75
1894	150	97.4	137	1925	74	67.9	75
1895	131	98.0	161	1926	130	74.4	70
1896	106	91.0	148	1927	87	70.8	70
1897	152	104.0	156	1928	76	67.9	65
1898	131	105.2	160	1929	81	70.4	74
1899	133	103.2	163	1930	77	68	60
1900	120	105.3	154	1931	71	69	66
1901	139	95.5	151	1932	89	71	65
1902	127	95.2	133	1933	89	65	64
1903	112	92.2	132	1934	72	63	59
1904	118	95.8	145	1935	84	67	57
1905	131	90.2	128	1936	80	74	59
1906	133	88.0	132	1937	103	73	58
1907	139	88.5	118	1938	75	66	53
1908	134	91.2	120	1939	73	65	50
1909	125	87.3	109	1940	92	66	56
1910	96	89.1	105	1941	85	73	59
1911	139	91.3	130	1942	100	68	49
1912	107	82.1	95	1943	113	83	
				1944	108	79	

In Table 47 is set out a comparative statement of infant mortality in Cork, Dublin, Belfast, Limerick and Waterford from 1920 to 1941.

Table 47.—Infant mortality in Cork and other Irish Cities from 1920.

Year	Cork	Dublin*	Belfast†	Limerick*	Waterford*
1920 ...	79	152	132	109	96
1921 ...	76	143	115	113	102
1922 ...	93	120	94	108	94
1923 ...	66	117	101	128	78
1924 ...	87	119	107	90	93
1925 ...	74	117	104	91	106
1926 ...	130	127	112	146	114
1927 ...	87	123	101	102	83
1928 ...	76	102	103	117	105
1929 ...	81	106	112	118	110
1930 ...	77	97	78	114	91
1931 ...	71	94	90	120	92
1932 ...	89	100	111	91	132
1933 ...	89	83	102	126	103
1934 ...	72	80	80	76	92
1935 ...	84	94	112	106	126
1936 ...	80	114	102	95	90
1937 ...	102	102	94	68	97
1938 ...	75	96	96	70	99
1939 ...	73	90	86	59	73
1940 ...	95	91	122	70	111
1941 ...	85	118	91	95	88
1942 ...	100	98	90	77	91
1943 ...	113	126	111	76	100
1944	108	125	89	136	84

* Figures for current year obtained from Annual Summary of Registrar-General. Those for previous years have been corrected from figures in the Annual Reports of the Registrar-General for the appropriate years. (Table 10).

† Figures obtained from Superintendent Medical Officer of Health.

Neo-natal Mortality. The role of neo-natal mortality (i.e., deaths of infants under one month old) in the production of infant mortality is shewn in the following table.

Table 48.—Deaths of infants *under one month* in Cork City and the ratio of same to the total number of infant deaths (i.e., under one year), together with the comparative figures for the whole country.

Year	CORK CITY		IRE. Relation of deaths under one month to all infant deaths
	Deaths under one month	Proportion to all infant deaths	
1931	41	30.1 per cent	38.4 per cent.
1932	47	29.6 " "	35.9 " "
1933	56	33.3 " "	39.7 " "
1934	43	29.9 " "	38.7 " "
1935	39	26.2 " "	39.9 " "
1936	56	36.8 " "	40.5 " "
1937	58	31.4 " "	41.7 " "
1938	34	27.2 " "	42.4 " "
1939	47	39.8 " "	44.1 " "
1940	45	29.4 " "	42.0 " "
1941	52	30.9 " "	41.2 " "
1942	52	32.9 " "	39.5 " "
1943	91	46.4 " "	40.2 " "
1944	58	31.0 " "	

Table 49.—Deaths of infants under 1 year, shewn as neo-natal and other deaths.

Cause of Death	Neo-Natal	Others	Total
Prematurity ...	28	1	29
Congenital Debility ...	4	1	5
Congenital Malformations†	5	4	9
Diarrhoea and Enteritis	7	56	63
Broncho-pneumonia* ...	2	19	21
Whooping Cough ...	—	17	17
Other Infectious Disease	—	4	4
Marasmus ...	1	7	8
Congenital Syphilis ...	—	7	7
Tuberculosis ...	1	5	6
Convulsions ...	3	1	4
Meningitis ...	—	3	3
Septic Infection ...	—	2	2
Cerebral Haemorrhage ...	2	—	2
Miscellaneous ...	5	3	8
Totals ...	58	130	188

† Including congenital cardiac disease.

* Including pneumonia and bronchitis.

(Note—The figures in this table do not necessarily agree with the corresponding figures in table 5. This is due to the fact that, on investigation, transfers from one disease to another have been found to be necessary. Figures in table 5 are based entirely in District Registrar's returns of registered causes of death).

The findings of the enquiry (referred to last year) into the factors concerned with infant mortality are enumerated in the two succeeding tables. The first concerns neo-natal deaths (i.e., deaths occurring in the first month of life) and the second all other infant deaths. In the case of neo-natal deaths enquiry has not been made into the manner of feeding as this can scarcely be regarded as influencing the outcome since the great bulk of such deaths come under prematurity and its cognate headings. In the present instance 37 out of the total 52 deaths are accounted for under these designations. The general design of the undertaking was outlined in last year's report and, accordingly, need not be detailed further.

Table 50.—Cork City—Deaths of Infants under one year from conditions which constitute the principal causes of Infant Mortality.

Year	Number of Births Registered	DEATHS OF INFANTS UNDER ONE YEAR FROM															Rate per 1000 Births	Whooping Cough	Rate per 1000 Births
		Congenital Debility	Rate per 1000 Births	Prematurity	Rate per 1000 Births	Congenital Malformations	Rate per 1000 Births	Diarrhoea and Enteritis	Rate per 1000 Births	Pneumonia	Rate per 1000 Births	Convulsions	Rate per 1000 Births	Bronchitis	Rate per 1000 Births				
1931	1,963	18	9.17	20	4.58	9	10.19	28	14.26	8	4.08	16	8.15	5	2.55	3	1.53		
1932	1,820	28	15.38	13	3.30	6	7.14	39	21.43	13	7.14	19	10.44	8	4.40	8	4.40		
1933	1,884	19	10.08	27	3.72	7	14.33	38	20.17	17	9.02	13	6.90	13	6.90	2	1.06		
1934	1,846	17	9.21	24	3.25	6	13.00	32	17.33	12	6.50	9	4.88	8	4.33	8	4.33		
1935	1,915	18	9.40	19	2.61	5	9.92	50	26.11	23	12.01	6	3.13	5	2.61	—	—		
1936	1,913	12	6.27	28	2.61	5	14.64	36	18.82	27	14.11	10	5.23	6	3.14	—	—		
1937	1,799	18	10.01	13	3.89	7	16.68	45	25.01	27	15.01	18	10.01	4	2.22	5	2.78		
1938	1,761	13	7.38	19	3.98	7	10.79	31	17.00	21	11.93	9	5.11	3	1.70	3	1.70		
1939	1,632	24	14.17	16	4.90	8	9.80	34	20.83	9	5.51	10	6.13	3	1.84	2	1.23		
1940	1,670	17	10.18	25	2.40	4	14.97	45	26.95	15	8.98	8	4.79	5	2.99	—	—		
1941	1,680	15	8.93	25	5.95	10	14.88	33	19.65	16	9.52	11	6.55	6	3.57	1	0.59		
1942	1,842	14	7.60	18	9.23	17	9.77	49	26.60	16	8.69	10	5.43	5	3.26	1	0.54		
1943	1,781	12	6.23	46	6.17	11	25.82	52	29.19	25	14.03	8	4.49	4	2.23	2	1.12		
1944	1,721	5	2.90	29	5.23	9	16.85	63	36.02	28	16.27	7	4.06	3	1.74	13	7.55		

* Including broncho pneumonia.

Note :—Figures in this table are based on returns of the Registrar-General. They do not correspond to the figures in table 49 which have been readjusted by transfers as explained in text.

Table 51.—Neo-natal deaths. Analysis of factors concerned.

Cause of Death	Number of Deaths	Efficiency of Mother			Previous Health of Mother		Economic Circumstances			Pre-natal Supervision	
		Good	Avg.	Bad	Good	Poor*	Good	Avg.	Bad	+	—
Prematurity ...	28	13	11	4	9	19	7	13	8	15	13
Congenital Debility	4	—	2	2	3	1	—	3	1	2	2
Congenital Malformations ...	5	2	2	1	3	2	2	1	2	4	1
Gastro-enteritis ...	7	1	5	1	5	2	2	4	1	4	3
Convulsions ...	3	2	1	—	3	—	—	3	—	1	2
Broncho-pneumonia	2	—	2	—	1	1	—	—	2	1	1
Cerebral Haemorrhage	2	1	1	—	1	1	1	1	—	2	—
Marasmus ...	1	—	—	1	1	—	—	1	—	—	1
Miscellaneous ...	6	2	3	1	5	1	2	4	—	2	4
Total ...	58	21	27	10	31	27	14	30	14	31	27

* Included under this heading are cases in which there has been a history of falls. This occurred in six instances. Health otherwise may have been good.

It cannot be said that this table throws any particular light on the problem taken as a whole but it is to be noted, in the case of prematurity, that there was a history of ill-health in no less than 19 out of the 28 deaths recorded. Included under this heading are six cases in which there was an antecedent history of falls. As was to be expected the efficiency of the mother does not enter here nor has it been a factor in neo-natal mortality generally. It is difficult to pass judgement on the influence of adverse economic circumstances but it seems clear enough, on the basis of recent experimental work, that this factor must have some bearing on the question. It has been shewn, for example, that the incidence of immaturity in the case of mothers who are adequately fed is significantly less than that in mothers whose diet is inadequate or badly balanced. It is exceedingly difficult of course to control observations of this character in human beings and we must, of necessity, receive the results of such experiments with reserve but, if we can draw relevant conclusions from similar experiments on lower animals it seems clear that the provision of a properly balanced and constituted diet plays a preponderant role in the production of mature offspring and the ability of the mother to nurse them successfully. What is needed at the present time, more so perhaps than the provision of free meals even, is the education of the prospective mother in the relative value of different foodstuffs, the importance of milk and vitamin-rich foods, the necessity for breast-feeding and the general hygienic rules for preserving good health.

The findings in regard to infant deaths occurring after the first month of life are set out in table 52.

Table 52.—Main factors concerned in deaths occurring at ages over 1 month and under 12 months.

Cause of Death	No. of Deaths	Feeding		Efficiency of Mother			Economic Circumstances			Legitimacy	
		Breast	Artificial	Good	Avg.	Bad	Good	Avg.	Bad	Legit.	Illegit.
Gastro-Enteritis ...	56	0	56	14	20	22	7	22	27	49	7
Broncho-pneumonia ...	19	1	18	5	9	5	4	7	8	19	0
Whooping Cough ...	17	1	16	4	8	5	1	7	9	17	0
Marasmus ...	7	1	6	0	2	5	0	1	6	6	1
Congenital Syphilis ...	7	0	7	1	0	6	0	1	6	3	4
Tuberculosis ...	5	0	5	2	2	1	2	0	3	5	0
Prematurity—											
Congen. Malfor'n. etc.	6	0	6	4	1	1	2	3	1	6	0
Inf. Disease ...	4	0	4	0	2	2	0	2	2	3	1
Meningitis ...	3	2	1	2	1	0	1	2	0	3	0
Miscellaneous ...	6	1	5	3	1	2	1	2	3	6	0
Totals ...	130	6	124	35	46	49	18	47	65	117	13

In comparison with the neo-natal group it is apparent that here we are confronted with a relatively simple problem, that of *breast-feeding*. A glance at the relevant columns makes that quite clear. Leaving aside the lesser causes such as syphilis, prematurity, etc., in which the relationship to feeding is not so clear it is evident that breast-feeding is a factor of enormous importance in the preservation of infant health. This is, of course, what we would expect in the case of gastro-enteritis in which the risk of direct infection to the gastro-intestinal tract is incurred from the first moment of instituting artificial feeding. It is apparent too in the case of tuberculosis in which infection by the tubercle bacillus may be conveyed by cow's milk improperly sterilised, although it has to be admitted that the majority of such infections are of human origin. But in conditions such as broncho-pneumonia, whooping-cough and the infectious diseases generally the connection is not so clear. And yet it is a constant factor in such cases. Stress was placed on this aspect of the problem in my last report and reference was made to the findings in an investigation carried out in Chicago into the health of over 20,000 children. There is some factor in mother's milk which exercises a potent influence in preventing infection in the child. So complete is the unanimity among the authorities on this point that it is no longer necessary to urge it. The importance of breast-feeding has not, hitherto, been sufficiently stressed in the medical curriculum, in many cases we have reason to know that maternity nurses could do much more to encourage their charges and often social pressure is brought to bear which discourages the mother from doing her duty to her child. These are all influences which will have to be combated if we are to effect any reduction in our infant mortality rates.

As is to be expected, the question of the efficiency of the mother has played a more material part in later infant deaths than in the case of neo-natal mortality. Efficiency is more or less bound up with indigency and it is very difficult to ascertain to what extent the one is due to the other. The personal factor enters largely into this relationship and the final result will depend to a considerable extent on the natural intelligence of the mother, her sense of responsibility, thrift, her ability to spend money wisely and the hundred and one other qualifications which go to make up the efficient mother in contradistinction to her more shiftless sister. It must be admitted that many mothers simply do not seem to be able to lay out money wisely; consequently they and their families continue to suffer the ill-effects of poverty and the ends of administrative measures calculated to relieve distress are not achieved in their cases. It is apparent that too many mothers come within these categories as is evident from the figures in the tables above. It is not by any means entirely a matter of lack of intelligence but rather one of education. This is the rock on which so many of our otherwise well-conceived schemes founder, the recipients fail to benefit because of their lack of basic training in the complicated art of housecraft. Nowhere, in my experience, has the problem been more ably discussed than in an article which appeared in *Biology, Health and Sociology*, 1944 and which I regard as being of such importance that it is (with the permission of the Editor) reproduced herewith *in toto*.

THE NEED FOR NATIONAL INSTRUCTION IN PARENTCRAFT.

By Leslie Housden, M.D.

Chairman, Parentcraft Committee, National Association of Maternity and Child Welfare Centres.

The standard of child-welfare in this country is too low. This will be confirmed by all who are familiar with the insides of our homes and with what passes within them for family life.

The condition of many of the "evacuated" children was so degraded that public opinion was shocked. The migration of these children was widespread, the horror and the shame that they aroused spread even farther. This was one of the advantages of war. Nothing that those who knew previously of this condition had been able to do had attracted any but the most sporadic interest, either public or official, but from its rude awakening by the evacuated children, public interest began to take notice of the nation's childhood as a whole. It found no cause for self-congratulation. Juvenile delinquents were found to abound—twenty-eight thousand annually before the war, forty-one thousand in 1941. Reports were made of the habits and abilities of new entrants into the women's services. Thousands were found to be entirely undomesticated. They had never turned out a room nor lit a fire. They could go for days without washing. A statement was made in the House of Commons of the wanton damage to railway carriages and cinemas. In some parts, children's cinema matinees had to be discontinued owing to the destruction of the seats by the children. Thieving and pilfering were general. Prisoner-of-war parcels were rifled at the docks, the lifeboats of ocean-going ships were robbed.

It was a very gloomy picture of wrong-living and wrong-doing by children, by those who were recently children and by those who had children of their own to guide. It was the obvious sign of a national cancer, but not the only sign. The evil spreads further. The more obvious signs are displayed in the Press and in the Courts, the less obvious are seen in the children's homes.

The number of children who are mismanaged in these homes must be very great indeed. They are found in every street. Their presence is recognised by the frequent scolding of the parents, the constant disobedience of the children, the poor appetites, the shortened hours of sleep, the fretfulness, the ill-humour and the lying. It is absurd to think that married couples enjoy such a way of living. Whatever their reasons for marrying, it was never to enable them to live a life of ill-tompered misery. Marriage did not start that way. It started happily. Side by side with this state of mental unrest goes the poor state of health of so many of our children. This is another aspect of the gloomy picture. They are not ill but they are ailing, yet nearly every one started life in good health.

These conditions, physical and mental, are found in a country which has long enjoyed compulsory education on a national scale and a vast and ever-expanding organisation for the welfare of children. Something, then, must be wrong. To what can we ascribe the blame? Poverty? Bad conditions of housing?

Juvenile delinquents, neglected, mismanaged and ailing children are not confined to the poor. If they seem to be so limited, it is because usually the better-to-do the family the greater the disposition and the ability to conceal such defects in it. The degradation of even the worst of the evacuated children could not be attributed to poverty. Some of them had half a crown weekly as pocket money to spend on inferior sweets and "comics," and considerable sums were spent regularly on cigarettes and in unprofitable ways, such as gambling.

Nor can the blame fairly be attributed to bad housing. Inconvenient, work-making houses are undoubtedly the torment of many housewives in all ranks of life, but some of the families from the worst quarters of the evacuated areas had been moved, before the war, into brand-new council houses without any improvement whatever in their standard and mode of living or in cleanliness. Yet their children, when given, during the evacuation, into the care of kindly and instructed foster-parents, ceased to be the horrible children they had been under their own parents and became attractive and lovable. Examples of happy and creditable family life in bad houses are known to all who take a practical interest in home life. The secondary position played by the house in promoting the well-being of the home is also seen in neighbouring houses of any street, where one contains a happy, affectionate family and the other a discontented, cantankerous collection of individuals, both households having similar houses and equal incomes. It is not the houses, it is not poverty. What is it?

The chief hindrance to the progress of our child-welfare is the mistake of teaching the principles of child-care to all except those who are actually going to practise it. More and more the responsibility for our children is being taken over from their parents by local authorities. Points concerning the health and guidance of the children are taken for solution automatically to members of the public welfare-services. The parents cannot solve them, and make no attempt to do so. Worse still, they do not wish to. With the release from responsibility for children, for whose existence they alone are accountable, their interest in them diminishes. This creates an impossible situation, for interest in the children is the foundation of all child-care. If the children are to be taken entirely from the care of their parents, then the modern trend is good, but if the family life is to continue, and if children are still to live at home with their parents, those parents will exert an influence greater than any outside force. This is evident. In many of our schools, the precepts and examples of the teachers are excellent, but they cannot bear fruit in the characters of their pupils unless they have the support of similar precepts and examples in those pupils' homes. However often a child may write at school "Thou shalt not steal," his integrity will not survive an atmosphere of dishonesty at home. This being so, and in principle it is indisputable, the line of action is clear. The standard of parentcraft must be raised.

The rearing of any child is not a matter of instinct. Civilisation has imposed too many unnatural obligations for the employment of unrestrained liberty. The instinct of a hungry child is to eat. If the food belongs to someone else, his instinct will lead him into trouble. The instinct of an adult leads her to fold a nervous child protectingly in her arms. There are few surer ways of

establishing his fear. Affection for children seems to be instinctive, but for their rearing and guidance in a land where certain civic and social rules must be kept, intelligence must augment instinct and the use of that intelligence is a matter for education. Parents must be trained to rear and guide their children. The maintenance of inborn health is neither difficult nor complicated if the principles involved have been learnt. A happy childhood is not difficult to provide if parents have been shown what knowledge and unselfishness on their part are needed for its provision. It is common for prospective parents to dream of their future child, so lovable, so admired, so good. What they do not foresee equally clearly is the thought, the co-operation and the careful example that are needed to produce such a wonder. This must be taught and should be taught to every parent.

How is this possible? If arrangements were made for instruction in parentcraft to be given on a national scale, how would the parents be persuaded to receive it? Only the best of the parents would welcome such teaching. The ones who needed it most would stay away, and they could not be forced to attend. In this matter they are beyond help. It is deplorable that so many bad, uninstructed lazy parents should exist in a child-loving country, half-way through the twentieth century, but it will be nothing short of a national disgrace if more are allowed to appear in the next generation. The parents of the next generation are now all at school, where until the age of fourteen—and soon it will be fifteen or sixteen—they are going to be taught something whether they like it or not. Here is the chance to teach them something that will transform their lives. What shall it be?

Domestic unhappiness is largely a matter of weariness and anxiety. The mother is usually chronically tired. Lacking the knowledge required to organise her day and save herself work, to prevent waste and to make good use of the family income, she never ceases to be busy from early morning till late at night. Her house is always in a muddle and is never clean, not because she would not like it to be clean but because of her inability to keep it sufficiently tidy to be cleanable. Her children add to the domestic turmoil and fill her with anxiety. She can neither preserve their health nor control their behaviour. They are a nuisance, which she is only too ready to hand over to someone else. Her husband is rarely of real help. He is irritated by the general unrest of his home and opposes his wife in her treatment of the children. There is a sentimental attachment combining the various members of the family, but the conditions under which they live prevent any display of real affection. That is the existing state in tens of thousands of our homes, described in the general terms imposed by so short an article.* Its improvement is a matter for pre-marital education. Lazy housewives and neglectful parents will always exist, but they should exist only in spite of education, not through lack of it. Every boy and girl should be taught how to rear a happy family in an attractive home. It matters little where this knowledge is obtained so long as it be adequate for its purpose. In good homes, it is acquired by daily observation and by a process of gradual instruction in house-care and social adjustment, without any actual lessons at all. In many of our homes, parents are unable to give this teaching, which must therefore be provided by others.

The teaching, which can be called "Mothercraft" for girls and "Home-Building" for boys, is concerned with everything that helps in the healthy rearing of happy children. It is related to but separate from sex-teaching and preparation for motherhood. The feeding, clothing and bathing of infants form only a small part of it. Its main concern is to teach how initial well-being may be preserved. It tells, not of the struggle against disease, but of the preservation of inborn good health, of the retention of the original orderliness and comfort of the home, despite the unsettling irruption of children, of the maintenance of the highest possible standard of living on the available means, of the retention of that joy in living that is natural to every child. For boys, it reveals the duties and responsibilities of fatherhood, of which many of the fathers of to-day are quite unaware. Besides the actual "technical" instruction, the subject bears a definitely moral value, for such qualities as selfishness and lax morality are incompatible with good parentcraft.

* A fuller account of the whole subject will be found in *The Parents' Responsibility* by Dr. Housden, distributed by Messrs. Eyre and Spottiswoode.

There is no obstacle to the immediate institution of this teaching on a national scale. The children enjoy it. Onwards from the age of ten, there is no schoolgirl for whom the subject is unsuitable. The teaching is adjustable to the age and mentality of the pupils. The subject is full of interest, and its fascination for the pupils can be maintained by teachers of sympathy and ability. The fund of potential teachers is great, the necessary qualifications being an intimate knowledge of and deep sympathy with the subject, the ability to teach it in an arresting and vital manner and familiarity with the types of homes from which the pupils come.

Suitable teachers of girls would be those with the following qualifications : (1) State registration in nursing, (2) Health-visitor's certificate, (3) Adequate experience (e.g., two years) as health-visitor, and (4) Instruction in teaching, but there would certainly be many suitable teachers of "Mothercraft" without such qualifications. Aberdeen, with its two full time teachers of "Mothercraft" for schoolgirls has set an example to the whole country.

It is time that the ruin of children's health and happiness through the haphazard "care" of their uninstructed parents should end. The official, who is not aware of the urgency of the need for this teaching is not aware of the home conditions of the children, whose official protector he is. The finance committee who recoil from its cost are only studying one side of the equation.

The more parents know about their children, the less those children will cost the State. All normal infants can be reared through a healthy and happy childhood by their own parents, with small expense to the State, provided those parents are instructed. Yet millions of pounds sterling are spent annually on hospitals, convalescent homes and clinics, on juvenile courts, approved schools and probation systems, in endeavouring to recover physical and mental health which should never have been lost. Parentcraft-teaching in school is a money-saving plan and would enrich the Treasury.

Much money to-day is wasted on "education," The parents of all the "horrible" children of the evacuation and of the juvenile delinquents went to school. If some of their "education" had been replaced by the teaching of parentcraft it is unlikely that their children would have cost the State so much in money and the nation so much in reproach. If children are not sent to school to prepare them to live as usefully as possible to their neighbours and themselves and to enjoy their lives as fully as possible, it is difficult to see why education is compulsory. The rearing of their children forms a large part of the lives of most adults, particularly of women. Let them be prepared for it.

This article deals with the situation, as the author conceives it in regard to England yet it must be conceded that there is scarcely a sentence that has not a direct bearing on our own problems for such problems are, after all, the direct consequence of urbanisation and the highly artificial civilisation in which we must live. If we do not face them we are simply ignoring the realities and our best laid schemes will come to nothing. There is no doubt that the primary stimulus to a decent level of household management is the provision of a self-contained house for each family, but we know now only too well that in many individual cases the recipients have fallen lamentably short of this achievement. The cause of this failure has been clearly shown above. Then there is the question of juvenile delinquency. This problem with us is of ever increasing magnitude and yet we know it is no new one. What else had the psalmist in mind when he wrote : "The parents ate sour grapes and the children's teeth were set on edge". Dr. Housden expresses the point in different phraseology when he contrasts the happy, affectionate family with the discontented, cantankerous collection of individuals next door but the root principle

is the same. There is no doubt whatever that under urban civilized conditions the rearing of children is not a matter of instinct. Very often indeed it is merely a matter of ignorance and superstition masquerading as instinct, abetted by social and economic forces pressing in on the victims. To break this vicious circle is the problem and it would seem that the only means of doing so is by education applied at the right time and in the right way. One does not mean education as we have had experience of it in the past but rather along the lines indicated by Dr. Housden, commencing at school and continuing right up to the time of marriage. Housecraft, as I have pointed out before in these reports, is perhaps the most difficult job in the world, yet under modern conditions most young married women embark upon it without any experience whatever. Those of them who have not spent the pre-marital years in factories will have done so in offices with results which are in many cases, to say the least, unfortunate.

Dr. R. C. Wofinden, Deputy M.O.H. Rotherham C.B. deals with another aspect of this problem in an article entitled "Problem Families"* in which he makes a serious effort to assess the relative importance of the factors concerned in the behaviour of such families. "Low mental standard of the mother," he writes, "is apparent in one-fifth of the cases, and in this fact the extent to which the family life revolves around the mother is well brought out. There is a world of difference between the home which is sub-standard because of lack of money and the home which is sub-standard because the mother is mentally below par. In the first there is an obvious attempt to cope with difficulties. The children are washed, the clothing though poor is well repaired, the house is clean even though sparsely furnished and there is a brave attempt to maintain dignity. In the problem family there are no such attempts. There is no self-help and almost complete inability to improve with outside assistance. The elementary lessons of hygiene are ignored with consequent vermin, scabies and impetiginous infections." These individuals, in fact, constitute our most acute public health problem, improved housing alone has not proved a remedy as we know. "In Rotherham nearly half the cases are in good houses (municipal or equivalent) but the conditions described are none the less true. Removed from slum areas they proceed to rebuild another slum. The practice of placing families with a low standard of cleanliness next door to a clean, well run family on new housing estates is to be deprecated. There is much to recommend the segregation of such low-standard families in older houses and allowing them to occupy a new house when they have proved their ability to keep it and its occupants in a satisfactory hygienic condition."

If a considerable portion of this section has been devoted to the question of the home and family it is only because it is regarded as being of prime importance in the welfare of the community. The importance attached to it by the two authorities quoted is not in question, nor will that importance be questioned by anyone who can see the problem as a whole. One can envisage the formation of an institute devoted to the teaching of housecraft and the granting of diplomas which would

* Public Health September, 1944.

qualify the holders for a municipal house. Why, after all, should not the municipality call for qualifications from those who would occupy its property? The management of a home is an arduous occupation calling for the highest and best traits of character, but it is an honourable and dignified one, and in a normal community would be regarded as one of the highest of all callings.

RICKETS.

It has been deemed advisable to remark upon the incidence of this disease during the past year. It will be recalled that for many weeks prior to November 1943 a persistent campaign was being waged in certain sections of the press against the wholemeal loaf and that the basis of this attack was the allegation that the increase of rickets which had been noted in Dublin and elsewhere was due to the phytic acid of wholemeal flour preventing the absorption of calcium. It is clear enough from the published evidence that the authorities were advised to this effect, and that the advice tendered was founded on experimental work on a limited number of human beings. It seemed to many observers that the field of investigation which this experiment covered was altogether too narrow to justify such sweeping and far-reaching conclusions and several voices were raised in protest and in warning. They did not avail and the result was that the 85% loaf was introduced on 13th Nov. of that year.

Up to this there had been from time to time many obviously inspired articles in the daily press in which much stress was placed on the relationship between wholemeal bread and rickets, but scarcely had the new loaf become an accomplished fact than a more cautious note was sounded. "One dietician was of the opinion, however, that so long as our social conditions make it necessary for lowly paid labourers to subsist largely on a bread diet, it might be better for them (the labourers) to continue purchasing wholemeal bread, provided the one objection to its use—lack of calcium—could be got over. As the basis of this contention, he pointed to the *lower protein and mineral content* (italics mine) of the new bread. The need for adding calcium salts to the new bread would vary in different parts of the country. *The real answer to the rickets problem, of course, is more milk, cod liver oil, Vitamin D and sunlight*" (italics mine). This paragraph appeared in the journal which led the attack. It was published two days after the introduction of the new loaf. One cannot help thinking that it would have been more appropriate had it appeared a considerable time beforehand. Its importance lies in the fact that it expresses precisely the view of the great majority of those who have interested themselves in this subject. However it remains now to examine the position of affairs since the institution of the 85% loaf, to see how it compares with the period of the wholemeal loaf and to ascertain if there has been any basis for the claim that the latter was responsible for the increase in rickets.

The following figures are taken from the annual Reports of this Department for the past 14 years and are compiled from the records of this section (maternity and child welfare). They represent the number of cases of rickets seen at the welfare clinics over this period.

They do not, of course, purport to represent *all* the cases of rickets occurring in the city but they can claim to represent an accurate picture of the *trend* of the disease.

1931—45 Cases	1938— 2 Cases
1932—43 ,,	1939— 4 ,,
1933—24 ,,	1940— 2 ,,
1934—12 ,,	1941— 2 ,,
1935— 4 ,,	1942— 7 ,,
1936— 2 ,,	1943—16 ,,
1937— 1 ,,	1944—22 ,,

Before discussing these figures it is necessary to consider the different changes which took place in the composition of flour and the dates on which they became effective. These changes were brought about by governmental orders regulating the degree of extraction of flour and were as follows.

Oct. 1st, 1940—75 per cent extraction
Jan. 9th, 1941—80 ,, ,,
Jan. 27th, 1941—90 ,, ,,
Mar. 18th, 1941—95 ,, ,,
Feb. 16th, 1942—100 ,, ,,

The degree of extraction remained at 100 per cent. up to 13th November, 1943, when it was changed to 85% at which figure it has since remained.

The most striking feature of the figures for rickets is the very high incidence for the first few years for which they are available (1931-33). The average for these three years is 37 cases a year. This at once raises an interesting problem—if the extraction of flour is related to the incidence of rickets why should there be such an extremely high rate during this period? There is no question here of wholemeal bread. During this time practically the whole population of the country was eating white bread which, according to the views which have been put forward, should have ensured an almost complete freedom from rickets. But we see that the disease was much more prevalent than it was even during the period of 100 per cent. extraction.

After 1943 we note a striking and maintained lowering of the rate up to 1942 when a slight increase was recorded. How are we to account for this reduction? The answer to this is, in my view, that it is the direct result of the propaganda and preventive treatment given at the child welfare clinics which, year by year, become more and more popular and have been largely availed of by mothers of the working classes. During this time large amounts of cod-liver oil, malt extract and proprietary anti-rachitic preparations were issued at the clinics while even larger quantities were distributed at the city poor law dispensaries. There were therefore abundant supplies of vitamin D avail-

able for poor children. After the outbreak of the war all imports of cod-liver oil and proprietary preparations ceased. Existing stocks of cod-liver oil dwindled away so that by December 1941, it was no longer available. This was the position until December, 1943, when consignments began to arrive at Newfoundland and the commodity has since been available, but only at prohibitive prices. (We do not yet know how the potency of this oil compares with that of the pre-war Norwegian supplies).

In order to reach a rational conclusion as to cause and effect in this matter dates are of considerable importance—dates of the orders regulating the extraction of flour and the corresponding dates relating to increased incidence of rickets. Re-examining the second set of figures we note that in January, 1941, flour was of 90 per cent. extraction and that from the following March it was 95 per cent. In effect, then, from the beginning of 1941 to the end of 1943 practically the *whole of the bran* (that is, the part in which phytic acid is concentrated) was included in the flour. The main effect of the increase from 95 to 100 per cent. in February 1942 was the addition of the *germ*. Phytic acid is the bone of contention in this case. During the whole of 1941 and 1942 it was included in the bread without, apparently, any ill-effect whatever so far as rickets is concerned. It is not until 1943 that we note any increase, an increase relatively trivial in comparison with the incidence of the disease in the years prior to 1933, but still an increase. It is surely not without significance that this increase corresponds more or less accurately with the period of depletion of cod-liver oil and other anti-rachitics. It is necessary too to bear in mind that fats of all sorts were in short supply and generally speaking, beyond the purchasing power of the poor—the people most affected by rickets.

Finally it is necessary to examine the results of reducing the extraction of flour in November, 1943, which, in effect, means the removal of the germ and the bran. On the basis of the claims made for the white loaf the ineluctable conclusion, as it appears to me, is that there should have been a definite reduction in rickets. But, as we see from the figures above, this simply has not happened. There has, in fact, been an increase—22 cases in 1944 as compared with 16 in 1943. How is one to account for this? It seems to me that the only explanation is that it is not a question of bread at all, but one of fats, that is the fat-soluble vitamin D. We know that the present consumption of cod-liver oil is only fractional compared with pre-war years, that butter, milk, eggs and cheese are not available to the very poor and that these facts would account for the present persistence of rickets as well as its reappearance in 1942–43. If this assumption is true, and there are very solid grounds for believing it to be, that is surely a most irrational policy which makes a bad diet still worse by depriving it of its most valuable constituents, which undoubtedly has been achieved by reducing the extraction of flour.

There is one further point to be referred to. In November, 1943, commenting on the proposed change of extraction, I remarked that the decision to adopt an 85 per cent. extraction afforded an unique opportunity of throwing light upon the vexed question of the role of

phytic acid in the production of rickets. Since it was proposed to reserve for livestock feeding that portion of the grain in which this substance is concentrated, it would surely be the duty of those concerned to observe and report upon the incidence of rickets among animals so fed. Theoretically (that is to say, on the basis of medical statements), there should be a definite increase in the disease. It would be recalled that before the emergency, when flour of 75 per cent. extraction was most commonly used, large quantities of these so-called offals were used for stock feeding. If the theories concerning phytic acid were true, one would have expected that rickets would have been common among such animals. Was there, in fact, any evidence from the records of the Department concerned of undue incidence of rickets in livestock during the pre-war years? So far, no reply has been forthcoming to either of the last two questions here posed nor, in the circumstances, is this to be wondered at. Indeed, taking all the relevant facts into consideration, one can well understand how it is that this whole problem has come to be referred to as the "phytic acid bogey".

Table 53.—Éire. Principal causes of Infant Deaths (ratio per 1,000 Births). The corresponding figures for Cork City are shewn in Table 50.

Year	Congenital Debility	Prematurity	Diarrhoea and enteritis	Pneumonia	Convulsions	Congenital Malformations	Bronchitis	Whooping Cough
1931	16.00	8.58	8.27	7.72	6.78	3.38	3.17	1.16
1932	16.46	8.53	9.33	8.44	6.54	3.40	3.96	2.60
1933	14.38	9.59	8.92	6.99	5.61	3.59	2.79	2.54
1934	13.78	8.05	7.50	6.72	5.41	3.54	3.26	2.97
1935	14.19	9.76	10.65	8.08	4.50	3.90	3.40	1.05
1936	14.44	11.31	10.38	8.96	5.32	4.44	2.96	2.20
1937	13.65	12.16	9.95	8.34	4.99	4.39	2.92	2.46
1938	12.79	10.96	9.12	8.43	4.43	4.38	2.71	1.74
1939	12.68	11.02	9.33	7.67	4.48	4.82	2.35	1.37
1940	13.25	10.67	9.67	7.70	3.55	4.59	2.62	1.77
1941	14.14	11.57	14.18	7.93	4.23	5.57	2.34	1.46
1942	13.66	9.24	14.32	7.11	4.05	5.13	2.51	1.18
1943	15.20	11.58	18.26	8.91	3.99	5.85	2.93	2.87

The figures for 1944 are not yet available.

(B) NOTIFICATIONS OF BIRTHS.

The Acts bearing on this subject are the Notification of Birth Acts, 1907, which was adopted by the Corporation in September, 1922, and the Notification of Births (Extension) Act, 1915. These Acts place an obligation on certain individuals to notify to the Medical Officer of Health within thirty-six hours, births which have occurred in the area. The object of the Acts is to enable the Local Authority to afford advice and assistance to parents on the care and upbringing of children.

The general procedure in connection with the notification of births was outlined in my Report for the year 1932. The total number of such notifications received during the year amounted to 1,721. The number of births *registered* during the same period, according to the Annual Summary of the Registrar-General was 1,712.

(C) MATERNAL MORTALITY.

There were 8 deaths under this heading during the year.

Table 54.—The number of deaths of women directly attributable to or associated with pregnancy or childbirth during each of the years 1924-43, together with the rate per 1,000 births during each of these years, for the City of Cork. (Corrected for Births and Deaths in public institutions).

Year	Deaths from Puerperal Septic Diseases		Deaths from accidents of Pregnancy or Childbirth		Total Deaths from Puerperal Septic Diseases and accidents of Pregnancy or Childbirth		Deaths from causes associated with Pregnancy or Childbirth (not included in foregoing)		Total Deaths caused by, or associated with Pregnancy or Childbirth	
	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births
1924...	5	2.55	6	3.05	11	5.60	1	0.51	12	6.11
1925...	5	2.54	5	2.54	10	5.08	1	0.51	11	5.59
1926...	3	1.66	8	4.42	11	6.08	—	—	11	6.08
1927...	5	2.74	6	3.28	11	6.02	—	—	11	6.02
1928...	3	1.64	9	4.92	12	6.56	1	0.55	13	7.11
1929...	—	—	4	2.24	4	2.24	—	—	4	2.24
1930...	1	0.46	3	1.37	4	1.83	—	—	4	1.83
1931...	1	0.52	7	3.63	8	4.10	—	—	8	4.10
1932...	1	0.55	8	4.28	9	4.95	—	—	9	4.95
1933...	1	0.54	8	4.32	9	4.85	1	0.54	10	5.40
1934...	5	2.60	2	0.52	7	3.60	—	—	7	3.60
1935...	1	0.51	5	2.56	6	3.08	—	—	6	3.08
1936...	1	0.52	4	2.08	5	2.60	—	—	5	2.60
1937...	—	—	—	—	—	—	—	—	—	—
1938...	—	—	6	3.51	6	3.51	—	—	6	3.51
1939...	1	0.58	3	1.75	4	2.3	—	—	4	2.3
1940...	—	—	8	4.6	8	4.6	—	—	8	4.6
1941...	—	—	5	2.9	5	2.9	—	—	5	2.9
1942...	—	—	3	1.7	3	1.7	—	—	3	1.7
1943...	1	0.56	2	1.12	3	1.6	—	—	3	1.6
1944...	2	1.14	6	3.42	8	4.56	—	—	8	4.56

In Table 56 is set out the comparative maternal mortality for Cork, Dublin, Belfast, Limerick and Waterford County Boroughs, and for the whole country.

Table 55.—Maternal Mortality in different areas from 1920.

Year	Whole Country		Cork City		City of Dublin		Belfast		Limerick County Borough		Waterford County Borough	
	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births
1920	326	4.8	13	5.8	55	6.0	95	7.7	3	2.9	2	2.7
1921	336	5.5	8	4.0	53	6.5	53	4.7	1	1.0	3	5.1
1922	370	6.3	7	3.6	61	7.1	55	5.1	12	11.8	—	—
1923	328	5.3	4	1.9	46	5.5	58	5.3	16	5.6	3	4.9
1924	330	5.2	12	6.1	46	5.0	46	4.4	1	0.9	4	5.9
1925	312	5.0	11	5.6	42	4.9	29	2.8	3	2.8	4	6.4
1926	329	5.4	11	6.1	31	3.5	57	5.5	5	4.8	—	—
1927	291	4.8	11	6.0	23	2.8	36	3.7	5	4.8	3	4.7
1928	318	5.4	13	7.1	31	3.5	43	4.6	5	4.5	2	3.0
1929	283	4.9	4	2.2	30	3.4	43	4.8	7	6.2	1	1.6
1930	294	5.0	4	1.8	43	4.1	44	4.6	4	3.7	3	4.6
1931	272	4.7	8	4.1	29	2.1	54	5.7	4	3.5	3	4.5
1932	235	4.9	9	4.9	33	3.1	49	5.5	8	4.0	6	8.6
1933	255	4.4	10	5.4	22	2.1	42	5.2	7	7.1	2	2.8
1934	304	5.2	7	3.6	41	3.7	57	6.3	2	1.9	—	—
1935	272	4.6	6	3.0	38	3.3	54	6.0	6	5.5	4	4.0
1936	273	4.7	5	2.6	42	3.5	57	6.2	2	2.0	3	4.5
1937	204	3.3	—	—	33	2.8	56	6.1	3	2.9	4	5.8
1938	204	3.6	6	3.5	29	2.5	48	5.2	4	4.0	3	4.8
1939	150	2.7	4	2.3	23	2.0	—	4.4	1	1.0	1	1.6
1940	227	4.0	8	4.6	21	1.9	37	4.2	3	3.0	7	10.3
1941	209	3.7	5	2.9	21	1.8	31	3.6	3	3.0	1	1.6
1942	163	2.4	3	1.7	20	1.6	31	3.2	1	0.9	2	2.5
1943	162	2.5	3	1.6	15	1.2	32	2.9	1	0.9	—	—
1944	113	1.8	8	4.5	10	0.82	24	2.3	1	0.9	—	—

The above figures were obtained from the Annual Reports of the Registrar-General with the exception of those for the year 1944 (which were taken from the Annual Summary for that year) and those for Belfast, from 1922 onwards, which were kindly supplied by Dr. C. S. Thompson, Superintendent Medical Officer of Health. All figures include deaths from sepsis arising from abortion and miscarriage.

(D) SUPERVISION OF MIDWIVES.

1. Number of Midwives in Practice :—				
Certificate of C.M.B.	.....	...	...	56
Other recognised certificates	...	...	...	20
Total				76
2. Number of Midwives according to type of practice :—				
Attached to public institutions	...	...	...	6
Conducting only private maternity or nursing homes	...	...	...	12
Dealing with less than five cases per year	...	...	...	11
Monthly nurses	...	...	...	22
Others	...	...	...	25
Total				76
3. Number of visits of inspection of midwives				339
4. Disinfection of appliances				2
5. Reasons for summoning Medical help :—				
Abnormal presentation	...	...	...	17
Obstructed and delayed Labour	...	...	...	35
Post partum haemorrhage	...	...	...	3
Ante partum haemorrhage	...	...	...	8
Rise of Temperature	...	...	...	7
Ruptured perineum	...	...	...	3
Thrombosis	...	...	...	3
Retained (&c.) Placenta	...	...	...	2
Miscellaneous	...	...	...	10
6. Notifications of still births				53
7. Notifications of artificial feeding				156
8. Notifications of having laid-out dead bodies				—
9. Suspensions for twenty-four hours on account of contact with cases of infectious disease				2
10. Notifications of liability to be a source of infection				2
11. Notifications of deaths				118
12. Puerperal Pyrexia				2

It was unnecessary to undertake any legal proceedings against midwives during the year.

ARTIFICIAL FEEDING.

Cracked or inverted nipples	...	...	...	...	51
Health would not permit	...	...	...	...	36
Insufficient	...	...	...	...	32
Refusals (no cause assigned)	...	...	...	...	33
Illegitimate births	...	...	...	...	4

(E) WORK OF THE MATERNITY AND CHILD WELFARE
SCHEME.

The following is a summary of the work carried out during the year by the staff of the Centre.

Attendances of children under one year :—

(a) New Cases	...	...	2896
(b) Old Cases	...	...	3878

Attendances of Mothers with Children	...	8863
--------------------------------------	-----	------

Cases seen by the Medical Officer :—

(A) Under one year			
(1) New Cases	...	...	1356
(2) Old Cases	...	...	2459
(B) One to two years			
(1) New Cases	...	...	624
(2) Old Cases	...	...	945
(C) Two to five years			
(1) New Cases	...	...	542
(2) Old Cases	...	...	376
(D) Expectant Mothers			
(1) New Cases	...	...	543
(2) Old Cases	...	...	540

Analysis of cases dealt with by the Medical Officer :—

Consultations on infant feeding	1027
Diseases of respiratory system	369
" new born	2
" reproductive system	—
" urinary system	15
" nervous system	2
" circulatory system	2
" alimentary system	539
" skin	432
" ears	35
" eyes	43
Exanthemata	29
Mental defects	2
Congenital defects	3
Orthopœdic defects	4
Rickets	22
Avitaminosis	26
Number of cases dealt with	2552
Number of attendances	6302

Ante-natal work—

Number of cases dealt with	...	543
Number of attendances	...	1083

Return of Health Visitors' work—

(A) Under one year		
(1) Primary visits	...	1586
(2) Secondary visits	...	3567
(B) One to two years		
(1) Primary visits	...	1256
(2) Secondary visits	...	1929
(C) Two to five years		
(1) Primary visits	...	798
(2) Secondary visits	...	1627
(D) Expectant Mothers		
(1) Primary visits	...	735
(2) Secondary visits	...	504

The following cases were dealt with at the artificial sunlight clinic during the year :—

Avitaminosis	...	...	26
Debility	...	...	44
Rickets	...	...	22
Non-Pulmonary Tuberculosis	...	...	6
Anaemia	...	...	1
Number of cases treated	...	...	99
Number of Exposures	...	...	126

Section—V. Control of Food Supplies

The following report has been contributed by Mr. S. R. J. Cussen, Chief Veterinary Officer :—

(A) SUPERVISION OF MILK.

540 samples of milk were examined in our laboratory during the year. These samples may be roughly divided into two groups :

1. Detailed bacteriological examination	...	266 samples
2. Dirt test only	... ..	274 „
Total ...		540

1. The first group *i. e.*, those submitted to full examination comprised samples collected as follows (according to designation) with the addition of 10 samples of pasteurised milk.

Standard	...	29
New Milk	...	222
Pasteurised	...	8
*Pre-pasteurised	...	7
Total ...		266

The following tests were applied to these samples :—

(a) Sedimentation (or Dirt) Test.

The procedure was identical with that outlined in previous reports and the results obtained in the various grades were :—

	Standard	New Milk	Pasteurised	Pre-Past.
Very Clean	11	147	1	—
Clean ...	18	209	6	2
Fairly Clean	—	75	1	4
Dirty ...	—	53	—	1
Very Dirty	—	12	—	—
	29	496	8	7

(Note—Col. 2, new Milk, comprises *all* samples submitted to the sedimentation test. This includes samples of ordinary market milk which were submitted to this test *only* as well as samples submitted to full bacteriological examination. Hence the discrepancy between the total for this column and the group above).

* The term *pre-pasteurised* denotes raw milk that has been collected at a pasteurising station and which is intended for pasteurisation.

The Sediment (or Dirt) test is a simple and reasonably reliable one. It does not pretend to absolute scientific accuracy, but as a rough and ready index of general trends in the direction of cleanliness it maintains its position in the armamentarium of the dairy bacteriologist. Since its chief value is that of an indicator of general tendencies the results obtained over a number of years are set out below. Examination of the next two tables will show that there appears to be a definite improvement in the matter of general cleanliness.

Table 56.—Result of Dirt Test.

Year	No. of Samples	Very Clean	Clean	Fairly Clean	Dirty	Very Dirty
1930	412	8	72	118	156	58
1931	408	23	61	82	139	103
1932	630	4	27	108	265	226
1933	485	3	27	105	221	129
1934	339	—	19	51	148	121
1935	223	—	7	21	103	92
1936	227	3	21	43	106	54
1937	206	5	31	80	70	20
1938	174	3	36	83	49	3
1939	714	61	184	224	193	52
1940	736	163	251	176	115	31
1941	440	120	162	82	59	17
1942	516	119	223	88	67	19
1943	534	138	248	87	53	8
1944	540	159	235	80	54	12
Totals	6584	809	1604	1428	1798	944

In order to test the general tendency in regard to cleanliness the last two columns of this table have been taken together and further analysed. The results are shown in the next table.

Table 57.—Proportion of Samples classified as "Dirty,"

Year	No. of Samples	Dirty	Proportion
1930	412	214	51.9 per cent.
1931	408	242	59.3
1932	630	491	77.9
1933	485	350	72.2
1934	339	269	79.3
1935	223	195	87.4
1936	227	160	70.9
1937	206	90	43.6
1938	174	52	29.8
1939	714	245	33.9
1940	736	146	19.8
1941	440	76	17.2
1942	516	86	16.6
1943	534	61	11.3
1944	540	66	12.2

(b) **Microscopic Test.**

266 samples were submitted to routine microscopic examination. Acid-fast organisms were detected in none of those samples, streptococci were present in 6 and pus cells in 1, and blood in 8. In 251 instances the samples were free from suspicious organisms.

(c) **Bacteria of Faecal Origin.**

Determination of organisms of this character has been a routine for a number of years. Included in this group is *B. Coli*, the presence of which may be regarded as proving carelessness in the production and handling of milk. A full account of the test has been given in previous reports. The findings for the year were as follows:—

Table 58.—Results of Tests for presence of *B. Coli* in Milk.

Designation	No. of Samples Examined	<i>B. Coli</i> Present	Proportion Free from <i>B. Coli</i>
Standard ...	29	5	82.8 „
Ordinary Market Milk ...	237	52	78.1 „

(d) **Pathogenic Bacteria.**

Under this heading our principal concern is the presence of the *tubercle bacillus* in milk. Other organisms (*e.g.*, streptococci) are also concerned in a minor role and have been alluded to under the heading of microscopic examination. The biological test (involving the use of guinea pigs) is the only reliable test for tubercle bacillus and the results obtained over a number of years are set out in columnar form as follows:—

Table 59.—Tubercle Bacilli in Milk—Results of Biological Tests.

Year	No. of Tests	Positive	Proportion Positive
1931	2	—	—
1932	14	1	7.1 per cent.
1933	63	—	—
1934	10	—	—
1935	25	4	16.0 „
1936	201	13	6.4 „
1937	23	—	—
1938	90	7	7.7 „
1939	71	5	7.0 „
1940	94	4	4.2 „
1941	96	4	4.1 „
1942	105	2	1.9 „
1943	75	6	8.0 „
1944	68	4	5.8 „
Total	935	50	5.3 „

The figures for individual years are, on the whole, on the small side so far as reliable information is concerned. The sum total, however, of some 935 tests yielding an approximate proportion of 5.3 per cent. positive may be regarded as a fairly accurate index of the amount of tubercle infection in the local milk supply. This is one aspect of the milk problem which recent legislation has done nothing to solve.

(e) The Reductase Test.

The modified method of Wilson has been used. As in the case of other tests mentioned, this method has been fully described in previous reports. Briefly, by means of a colour index which takes into account the rate of decolourisation of a standard solution of methylene blue added to given quantities of milk maintained at a standard temperature, the bacterial content (in numbers) can be estimated. The results obtained are set out below and in order to assist in the interpretation of these results it seems desirable to specify the values attached to the various grades :

Grade I	...	Less than 500,000 bacteria per c.c.
Grade II	...	500,000 to 4 million bacteria per c.c.
Grade III	...	4 million to 20 million bacteria per c.c.
Grade IV	...	Over 20 million per c.c.

Particulars of the various samples and the results obtained are set out below :

Standard Milk—

Grade I	...	21
Grade II	...	3
Grade III	...	3
Grade IV	...	2
		<hr/>
		29

Ordinary Milk—

Grade I	...	184
Grade II	...	22
Grade III	...	13
Grade IV	...	3
		<hr/>
		222

For *pasteurised* milk and *pre-pasteurised** milk plating on nutrient media with direct colony counts was substituted for the Reductase test and by this method the following results were obtained :

Pasteurised		Pre-pasteurised*	
Sample Number	Bacteria per c.c.	Sample Number	Bacteria per c.c.
1	17,000	1	31,000
2	120,000	2	250,000
3	46,000	3	400,000
4	110,000	4	1,552,000
5	22,000	5	656,000
6	21,000	6	320,000
7	25,000	7	72,000
8	15,000		

*See footnote on page 78.

Bacteriological Examinations.

111 Samples of milk collected in Creameries and examined in our laboratory on behalf of the Local Govt. Department were submitted as follows :—

By the Cork Co. M.O.H.	...	99 samples
„ Kerry Co. M.O.H.	...	6 „
„ Local Govt. Inspector	...	6 „

On behalf of the Local Govt. Dept. 37 samples of designated milk and 7 samples of pre-pasteurised milk were collected in the urban area and examined in our laboratory.

Prosecutions.

(A) MILK AND DAIRIES ACT, 1935.

30 persons were prosecuted for non-observance of the above Act.

25 convictions were obtained and fines amounting to £10 ls. 0d. imposed. 3 cases were marked proved. 1 withdrawn on payment of costs and 1 dismissed.

With reference to the successful prosecutions—

1	summonses	were	brought	under	Section	24
28	„	„	„	„	„	59
1	„	„	„	„	„	60

Section 24.—Relates to the prohibition of the sale of milk by un-registered dairymen or on unregistered premises.

Reference to the successful prosecutions :—

Article 9 Relates to the General Duty of an Employee.

Article 21 Relates to the Cleansing of Milk Shops.

Article 22 (3) Relates to the Cleansing of Milk Vessels and Appliances.

Article 22 (5) Relates to the Storing of Vessels and Appliances.

Article 23 Relates to the Easy Removal of Taps in Milk Churns for the purpose of Cleansing.

Article 25 Relates to the Storing of Milk in places where it is likely to be contaminated by dirt, dust or impure air.

Article 27 Relates to the Prevention of Contamination by dust or flies.

Article 28 Relates to the Cleanliness of Persons having access to Milk.

Article 40 Relates to the Vehicles used for conveyance of Milk.

Article 42 (1) Prescribes that Every Sale Container be provided with a Tap.

Article 42 (2) Relates to the Taking of Milk from a Sale Receptacle otherwise than by means of a Tap in such Sale Receptacle.

Article 42 (4) Relates to the Keeping of Milk in, or Selling Milk from a Sale Receptacle that is not provided with a Tap.

NOTICES SERVED.

The number of notices sent out under the Milk and Dairies Act and Regulations was 46.

Table 61.—Detailed results of proceedings against persons for infringements of the Milk and Dairies Regulations, 1936.

Prosecution under Article	Fines Imposed	Prosecution under Article	Fines Imposed
42	3/6 and costs	22 (3)	3/6 and costs
40	3/6 "	22 (5)	Proved
40	Proved	25	"
22 (3)	5/- and Costs	27	"
9	5/- "	40	5/- "
22 (3)	7/6 "	40	Proved
9	7/6 "	28	5/- "
40	Proved	22 (3)	5/- "
28	5/- "	22 (3)	7/6 "
28	7/6 "	22 (5)	Proved
28	5/- "	27	5/- "
22 (5)	Withdrawn		
40	10/- and costs	22 (3)	5/- "
22 (3)	Proved	42 (2)	Proved
42 (4)	3/6 "	28	7/6 "
22 (5)	7/6 "	22 (3)	Proved
40	Proved	27	"
40	7/6 "	21	7/6 "
22 (3)	Proved	22 (5)	Proved
23	5/- "	40	7/6 "
22 (3)	6d. "	22 (5)	Proved
22 (3)	2/6 "	40	7/6 "

(B) MEAT INSPECTION.

Meat Inspection Depot :—3,702 bovine carcasses were examined. Of this number 821 (22.1%) were found to be affected with varying degrees of tuberculosis. It was found necessary that 6 such carcasses (0.16%) should be totally condemned as unfit for consumption, while 815 (22.0%) were partially condemned. In addition to the 3,702 bovine carcasses above referred to 2,242 sheep carcasses were also examined at the Depot and of this number 4 carcasses (0.17%) were totally condemned and 10 carcasses (0.49%) were partially condemned for diseases other than tuberculosis. 523 veal carcasses were examined and of this number 1 carcass was totally condemned and 24 carcasses partially condemned as being affected with tuberculosis. 411 pork carcasses were also examined and of this number 1 carcass (0.24%) was totally condemned and 65 carcasses (15.8—) partially condemned as being affected with tuberculosis. For diseases other than tuberculosis 1 bovine carcass (0.02%) was wholly condemned and 4 carcasses (0.10%) partially condemned. For similar reasons 1 veal carcass (0.18%) was condemned.

Table 62.—The amount (by weight) of meat examined and condemned at the Depot was as follows :—

Variety	Quantity Examined	Tuberculosis		Other Diseases	
		Quantity Condemned	Pro-portion	Quantity Condemned	Pro-portion
	lbs.	lbs.		lbs.	
Beef ...	1,851,000	8,083	0.43%	700	0.03%
Mutton ...	123,200	—	—	373	0.30%
Veal ...	104,600	325	0.31%	250	0.23%
Pork ...	61,650	1,060	1.7%	—	—

The amount of offals condemned at the Depot for Tuberculosis and other conditions was as follows :—

Part	Tuberculosis	Other Diseases	Total
Lungs ...	1,358	10	1,368
Heart ...	679	4	683
Livers ...	228	317	545
Kidneys ...	22	4	26
Head and Tongues ...	311	1	312
Total	2,598	336	2,934

Meat seized in shops and voluntarily surrendered during the year :—

	Seized	Surrendered
Beef ...	396 lbs.	64,901 lbs.
Pork ...	30 „	24,806 „
Bacon ...	—	— „
Veal ...	—	1,034 „
Fish ...	—	140 „
Fruit ...	—	— „
Poultry ...	—	1,392 „

Slaughterhouses and Bacon Factories.

Table 63.—**Tuberculosis.** The following are particulars of animals killed in local slaughterhouses and the incidence of tuberculosis therein.

Species	Number	Affected	Totally Condemned	Partially Condemned
Cattle ...	2,211	732 (33.1%)	21 (0.95%)	711 (32.1%)
Sheep ...	13,478	—	—	—

41,837 lbs. of Beef (representing 2.2% of the quantity examined) were condemned on account of Tuberculosis.

Bacon Factories :—Particulars of pigs slaughtered in bacon factories and reserved for local consumption in the form of pork and sausages were supplied to us by the Veterinary Inspectors of the Department of Agriculture. The number of pigs was 1,339 of which 390 (29.0%) were found to be affected with Tuberculosis. 11 of these (0.81%) were totally condemned and 379 (28.3%) partially condemned.

19,963 lbs. (3.7%) of pork were condemned on account of Tuberculosis.

Table 64.—**Diseases other than Tuberculosis.** Particulars of incidence found in slaughterhouses killings :—

Species	Number	Affected	Totally Condemned	Partially Condemned
Cattle ...	2,211	6 (0.22%)	2 (0.03%)	4 (0.18%)
Sheep ...	13,478	1	1	—

5,368 lbs. of Beef (representing 0.48% of the quantity examined) were condemned on account of diseases other than Tuberculosis.

Bacon Factories :—Less than 0.07% of Pork was condemned on account of diseases other than Tuberculosis.

Table 65.—Inspections carried out in *slaughterhouses* by our veterinary staff were as follows :—

Species	Carcases Examined	Condemned		
		Wholly	Partially	Meat & Offals
Cattle ...	2,211	23	711	42,442 lbs.
Sheep ...	13,478	1	—	35

PROSECUTIONS.

Particulars	Fine	Particulars	Fine
Tuberculous Beef	20/- and costs	Tuberculous Beef	Dismissed
" "	20/- "	" "	10/- "
" "	20/- "	" "	40/- "
" "	7/6 "	" "	20/- "
Unsound Meat	5/- "		

THE SLAUGHTER OF ANIMALS ACT, 1935.

The provisions of this Act were outlined in the 1937 Annual Report, it is not proposed to make further reference to them here.

The provisions of the Act were not reasonably observed by some occupiers of slaughterhouses and slaughtermen. Consequently there were 2 prosecutions under the Act during the period under review.

The Sections under which summonses were effected were:—

2 (a) Section 15—Failure to use an approved instrument.

Fines amounting to £1 10s. 0d. and costs were imposed in these 2 cases which brings the total amount of persons convicted under the Act since its inception to 48 and the total amount of fines to £19 4s. 0d.

There are at present 34 persons licensed to use the humane slaughter instrument.

The number of premises within the Cork Urban Sanitary District where meat and meat products are prepared for human consumption is as follows:—

Slaughter Houses—

Licensed (under Public Health Act, 1878)	...	...	20
Registered (being in use before the 1878 Act)	...	...	3
Registered (under the Fresh Meat Act)	...	...	5

Bacon Factories—

Where Pigs are slaughtered for Production of Bacon	...	...	4
Where Pigs are slaughtered for Bacon and Pork	...	...	4
Where Cattle are slaughtered in addition to Pigs for Bacon and Pork	...	...	4

Sausage Factories	14
--------------------------	-----	-----	-----	----

Triperies	7
------------------	-----	-----	-----	---

Number of inspections made of premises where meat is prepared and sold:—

Slaughter Houses	...	...	...	4,865
Sausage Factories	...	...	...	1,399
Triperies	...	...	...	1,445
Meat Markets	...	...	...	1,022
Butcher Shops	...	...	...	3,151
Pork Shops	...	...	...	142

In addition to the above the following inspections were made:—

Provision Shops	...	...	...	705
Fish Shops	...	...	...	145
Fruit Shops	...	...	...	118
Hawker's Stands	...	...	...	1,510

The number of Notices served to abate nuisances and remedy defects in Slaughterhouses and Triperies—28.

Meat Inspection.

For a number of years a system of voluntary meat inspection has been carried out. This has been utilised to an increasing extent in recent years. The following butchers now avail of the service. (The number of butchers in the City who still do not bring their meat for inspection is 52).

Buckley, Daniel J., 19, George's Quay.
 Barrett, John V., 59/60, Grand Parade Market.
 Barrett, Michael, 64/65, Grand Parade Market.
 Barry, Joseph, 38, Dublin Street.
 Connery, Michael, 71, Grand Parade Market.
 Coughlan, John, 3, Thomas Davis Street.
 Cash and Take Meat, 45, Barrack Street.
 Carroll, Michael J., 85, Oliver Plunkett Street.
 C. M. S., 16, George's Quay.
 Dillon, Edward, 14a, Castle Street.
 Desmond, Denis, 1 and 2, Grand Parade Market.
 Dineen, Daniel, 41, Prince's Street.
 Dineen, William, 74b, Oliver Plunkett Street.
 Dineen, Thomas, 79, Oliver Plunkett Street.
 Delicacies, Ltd., 55, Oliver Plunkett Street.
 Egner, Henry, 4a, Sullivan's Quay.
 Economy Shop, Anglesea Street.
 Economy Shop, 33, Patrick Street.
 Fitzgerald, Michael, 2, Parliament Street.
 Griffin, Leo, 55, Grand Parade Market.
 Harris, Mrs. Mary, 101, North Main Street.
 Long, Mrs. Mary, 82, Shandon Street.
 Mackey, John, 86, Oliver Plunkett Street.
 Millard, Cornelius, 4, Coburg Street.
 Murphy, John, 19, North Main Street.
 McNamara, Mrs. Nora, 73, Grand Parade Market.
 Nagle, John, 3, Market Lane.
 Nagle, Michael, 18 and 19, Grand Parade Market.
 Nagle, Mrs. Helena, 38, Oliver Plunkett Street.
 O'Callaghan, Daniel, 16, MacCurtain Street.
 O'Flynn, Benjamin, 70, Grand Parade Market.
 O'Neill, John J., 25, Grand Parade Market.
 O'Leary, Daniel, 17, Gerald Griffin Street.
 O'Flynn & Sons, 61, Oliver Plunkett Street.
 O'Hare, Edmond, Coburg Street.
 O'Leary, Richard, 353, Blarney Street.
 O'Reilly, John J., Dillon's Cross.
 O'Hare, James, 44, Prince's Street.
 Ryan, Joseph, 36, Washington Street.
 Sheehan, John, 100, Douglas Street.
 Tracey, John, 7, Castle Street.
 Walsh Bros., Gurranabraher Road.

(C) SALE OF FOOD AND DRUGS ACTS.

MILK.

Appended herewith is the Report of the City Analyst (Mr. D. J. O'Sullivan, M.Sc., F.I.C.).

Table 66.—Showing the number of samples of Milk submitted for Analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adulterated
March 31st, 1944 ...	154	143	11
June 30th, 1944 ...	140	129	11
Sept. 30th, 1944 ...	129	127	2
Dec. 31st, 1944 ...	116	116	—
Totals ...	539	515	24

Table 67.—Showing results of proceedings against vendors of adulterated samples and fines imposed.

Extent and form of Adulteration						Penalties Imposed	
Deficient in Fat—%			in Solids not Fat—%			Fines	Costs
"	"	3	"	"	14	1/-	15/9
"	"	3	"	"	2	—	—
"	"	5	"	"	—	—	—
"	"	5	"	"	—	—	—
"	"	5	"	"	—	—	—
"	"	6	"	"	5	—	—
"	"	6	"	"	8	Proved and Dismissed	20/-
"	"	6	"	"	—	5/-	15/9
"	"	8	"	"	—	5/-	15/-9
"	"	8	"	"	—	-/6	15/9
"	"	8	"	"	—	-/6	15/9
"	"	10	"	"	—	5/-	15/10
"	"	10	"	"	—	Proved and Dismissed	15/9
"	"	10	"	"	—	-/6	15/9
"	"	11	"	"	—	5/-	15/9
"	"	11	"	"	—	10/-	19/9
"	"	13	"	"	—	-/6	15/9
"	"	15	"	"	—	5/-	17/9
"	"	26	"	"	—	5/-	15/9
"	"	—	"	"	15	40/-	15/9
"	"	—	"	"	1	—	—
"	"	—	"	"	1	—	—
"	"	—	"	"	10	Proved and Dismissed	51/4
"	"	—	"	"	15	50/-	51/4

BUTTER.

Table 68.—Showing number of Samples of Butter submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1944 ...	4	4	—
June 30th, 1944 ...	11	11	—
Sept. 30th, 1944 ...	8	8	—
Dec. 31st 1944 ...	11	11	—
Totals ...	34	34	—

SPIRITS.

Table 69.—Showing the number of samples of Spirits submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1944 ...	—	—	—
June 30th, 1944 ...	2	2	—
Sept. 30th, 1944 ...	3	3	—
Dec. 31st, 1944 ...	13	11	2
Totals ...	18	16	2

Table 70.—Showing the number of miscellaneous samples submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1944	129	124	5
June 30th, 1944 ...	125	122	3
Sept. 30th, 1944 ...	138	136	2
Dec., 31st 1944 ...	154	147	7
Totals ...	546	529	17

Table 71.—Showing details in regard to miscellaneous samples examined during the year.

Articles	Mar 31st	June 30th	Sept. 30th	Dec. 31st
Chilled Eggs ...	—	—	—	1
Bevoline ...	1	—	—	2
Sweets ...	2	1	3	3
Condensed Milk ...	1	1	1	1
Black Pudding ...	2	4	5	6
Drugs ...	3	3	6	8
Sugar ...	—	—	1	—
Rice ...	5	4	2	2
Confectionery ...	16	13	13	19
Cheese ...	8	11	10	5
Cream ...	2	3	1	4
Jam ...	4	1	3	2
Cocoa ...	8	4	7	4
Gravy ...	1	—	2	3
Vinegar ...	3	1	5	5
Sausages ...	14	9	13	9
Flour ...	6	5	9	4
Baking Powder ...	—	—	—	—
Beer ...	8	11	8	14
Dripping ...	—	1	1	1
Sauce ...	1	5	7	6
Milk Pudding Mixture ...	—	—	—	2
Bread Soda ...	—	—	—	—
Fish Paste ...	—	1	—	1
Cider ...	—	—	1	—
Coffee ...	5	2	4	6
Custard Powder ...	8	15	10	9
Mineral Waters ...	3	4	1	7
Jelly ...	—	2	1	—
Cornflour ...	11	5	9	2
Tapioca ...	—	—	1	1
Bread ...	1	1	1	1
Oatmeal ...	1	3	—	4
Pearl Barley ...	—	2	1	3
Prepared Barley ...	—	2	2	2
Meat Cubes ...	—	—	—	1
Spice ...	—	1	—	—
White Pudding ...	—	—	—	1
Salad Cream ...	—	2	1	—
Salad Oil ...	—	2	—	1
Soup ...	1	—	1	2
Cooked Meat ...	—	—	1	1
Tinned Soup ...	3	—	—	—
Groats ...	—	—	—	1
Pudding Powder ...	—	—	1	—
Coffee Essence ...	—	—	1	1
Coffee Substitute ...	—	—	1	1
Rotunda Food ...	—	—	—	1
Sponge Mixture ...	1	—	1	—
Peas ...	—	1	—	1
Egg Sub. ...	—	—	—	2
Ice Cream ...	1	1	1	—
Tinned Meat ...	—	—	—	1
Lemonade Powder ...	—	—	—	—
Wine ...	1	—	2	1
Meat Paste ...	2	1	—	3
Chocolate Pudding ...	—	—	—	1
Coffee & Chicory ...	—	—	—	—
Blanc-mange Powder ...	—	1	2	—
Pancake Flour ...	—	—	—	2
Salt ...	—	—	1	1
Pepper ...	3	2	—	1
Pepper Compound ...	3	1	—	1
Tea ...	129	125	138	154

Table 72.—Return of offences detected by the Food and Drugs Inspectors, during the year.

Number of Case	Particulars of Offence	Result of Proceedings
1.	Sample of pepper not of the nature, substance and quality of genuine pepper	Fine 10/-, costs 18/10
2.	Milk deficient in fats—13%	Fine 5/-, costs 17/9½
3.	Sample of pepper (as in Case 1)	Fine 7/6, costs 12/6
4.	Milk deficient in fats—10%	Fine 5/-, costs 15/10
5.	Milk deficient in fats—6%, and in milk solids—15%	Fine 40/-, costs 15/9
6.	Milk deficient in fats—15%	Fine 5/-, costs 15/9
7.	Whole milk 3% deficient in fats and 14% deficient in milk solids other than fats	Fine 1/-, costs 15/9
8.	Whole milk 15% deficient in milk solids other than fats	Fine £2 10s. 0d., costs £2 11s. 4d.
9.	Whole milk 6% deficient in fats and 5% deficient in milk solids other than fats	Case marked "proved and dismissed."
10.	Whole milk 10% deficient in milk solids other than fats	" "
11.	Cornflour not of the nature, substance and quality of normal cornflour	Fine 7/6, costs 12/6
12.	Cornflour (offence as in Case 11)	Fine 7/6, costs 17/3
13.	Milk 10% deficient in milk fats	Fine 6d., costs 15/9
14.	Milk 10% deficient in milk fats	Fine 15/-, costs 15/9
15.	Milk 6% deficient in milk fats	Fine 10/-, costs 15/9
16.	Milk 8% deficient in milk fats	Fine 5/-, costs 15/9
17.	Milk 8% deficient in milk fats	Fine 6d., costs 15/9
18.	Whole milk 11% deficient in milk fats	Fine 10/-, costs 19/9
19.	Whole milk 6% deficient in milk fats	Marked "proved," costs £1
20.	Whole milk 11% deficient in milk fats	Fine 6d., costs 15/9
21.	Whole milk 8% deficient in milk fats	Fine 7/6, costs 15/9
22.	Whole milk 10% deficient in milk fats	Fine 5/-, costs 15/9
23.	Selling pepper condiment not of the nature, substance and quality of ordinary normal pepper	Fine 7/6, costs 15/9
24.	Custard powder not of the nature, substance and quality of ordinary normal custard powder	Fine 7/6, costs 16/-
25.	Gordan's Prepared Barley, not of the nature, quality and substance of ordinary prepared Barley	Fine 7/6, costs 18/6
26.	Whole milk 11% deficient in milk fats	Fine 3/6, costs 19/9
27.	Cake (confectionery) containing Boric Acid 0.15%	Fine 3/6, costs 16/-
28.	Gordan's Barley infested with cereal mites	Fine 10/-, costs 16/8
29.	Pancake Flour infested with mites	Fine 5/-, costs 16/9
30.	Infant Food infested with mites	Fine 20/-, costs 16/9
31.	Hydrogen Peroxide 84% deficient in peroxide	Fine 7/6, costs 16/2
32.	" " " " " "	Fine 10/-, costs 16/6
33.	Whiskey, 37.9% added water	Fine 70/-, costs 22/10
34.	Pork Sausages 10% deficient in pork	Dismissed
35.	Whiskey, 3% added water	Fine 7/6, costs 26/6
36.	Pearl Barley infested with mites	Fine 7/6, costs 16/6

REMARKS.

Milk. While the number of unsatisfactory samples reached the usual proportions in the first quarters of the year it is notable that there was a complete absence of adulteration in the last quarter.

Butter. No adulteration was detected in the restricted number of samples received.

Spirits. The usual watering occurred about Christmas time.

Miscellaneous. The faults discovered were of a more varied character than usual.

Sponge cake contained boric acid which was traced to the liquid egg used in its manufacture. This undesirable practice had been in abeyance for some years.

Sausages supplied to the Military Barracks on contract had not the required amount of meat.

Dyed flour sold as custard powder represented, probably, only a residue from a custom formerly common but disapproved by the Courts and now abandoned.

Mixtures of ground wheat, barley and capsicum (red pepper), with or without a little real pepper reflected the shortage of the genuine commodity.

Hydrogen peroxide solution with only a fraction of the proper peroxide content was sold by general traders. As this is an article which is liable to decomposition and, therefore, requires supervision in storage, stocking it must be a risk except for those who are experienced in its handling, e.g., pharmacists.

Pearl barley and pancake flour were found to be infested with cereal mites. More serious, prepared barley sold "for infants and invalids" and an article labelled "Rotunda Food . . . a dextrinised cereal food . . . for babies and invalids" were similarly infested, sometimes to a disgusting degree. The price charged for these commodities was, approximately, 12 times the cost of the grain from which they were prepared. Such a large ratio is not unusual for prepared cereal foods because of the expense and expert care necessary to make an article with lasting qualities and proof against the attacks of mites. But, in these cases, the care and expense seem to have been by-passed without any adjustment of the price margin. In this way the manufacturer has much more profit but leaves an impression of a want of a sense of responsibility to his ultimate customers, the "infants and invalids". In present commercial conditions these two tendencies are not incongruous.

A native company engaged in the manufacture of starch from potatoes saw fit to sell its product as "cornflour", a term hitherto confined, practically, to maize starch. The company had good reason; an Emergency Powers Order had fixed a maximum price for "maize starch commonly known as cornflour" without controlling the price of potato starch and the native product enjoyed a considerable price advantage in a market short of this kind of commodity.

When challenged in the Courts the company defended its adaptation of the name vigorously, gathering for this purpose a considerable body of expert opinion. But the prosecuting local authority showed an equal determination and produced its own experts. In a District Court the case became a rather classical one, conducted by senior counsel and witnesses ranging from factory managers to cooks. The decision was that potato starch is not properly called "cornflour". On appeal to the Circuit Court this decision has been affirmed, in a reserved judgment.

Any other decision would have upset the operation of the principal effective clause of the Sale of Food and Drugs Acts, contained in the Act of 1875: "No person shall sell . . . any article of food which is not of the nature, substance and quality of the article demanded". Therein is implied, for a term used to describe a foodstuff, a precision of definition which, as long as it is respected, gives the public a precious safeguard. To attempt to circumvent it is a form of irresponsibility.

Profit without responsibility seems, therefore, to have been the policy governing the sale of *maggoty cereals*, *mis-described potato starch*, *preserved sponge cakes*, *dyed flour* and *debased hydrogen peroxide*. The many shopkeepers who have handled these goods by retail have, in Court, uniformly blamed the wholesalers for their predicament; and, in turn, the wholesalers have blamed the manufacturers. All these parties combine to ignore the warranty provisions in the Acts, by means of which responsibility can be fixed. They pay each other's Court costs, take the financial loss and continue to offer goods of which they know only the outsides of the wrappers. These modern sales methods, that leave no trail of goodwill, have now reached the point of being not merely delinquent, but offensive.

COMMENTS.

The remarks of the City Analyst on this year's report call for serious consideration. The italics in the last paragraph are mine and have been inserted to draw attention to a most disturbing state of affairs which became apparent during the year—the sale of cereal (so-called) foods heavily infested with mites. These foods, put up in packages and appearing under various fancy names, were being sold widely in the city (and throughout the country). They represent a discreditable attempt on the part of various groups to profit by the shortage of similar, but reputable, preparations which had enjoyed a fixed sale before the war. It may be stated here that the stability of the latter articles was largely due to the process of ultra "refinement" to which they were subjected so that they became incapable of supporting insect life. In the case of the other products little or no attempt at refinement had been made, they were, in fact, practically crude wheaten or barley flours. It would seem that supplies of these commodities had been held against a rise in the market and that when the anticipated rise did occur they were unloaded in packets with pretentious titles and at a price far in excess of the original cost and of their real value. It was during storage that the mites developed and, from subsequent developments, one is forced to the conclusion that little or no attempt was made to ascertain the quality of the flours at the time they were offered to the public.

It will be noted from the table returning the offences detected by the Food and Drugs Inspectors and in the remarks of the Analyst that various types of food are in question. For example, an attempt was made to foist off potato starch as cornflour. The latter has, for generations, been manufactured from maize and is an entirely different article from potato starch. It is a matter of great satisfaction that this attempt was foiled and the public authority that fought it is deserving of congratulations on the success of its undertaking. Any other verdict would, as Mr. O'Sullivan has pointed out, have completely undermined the only protection which the public has against the sophistication of food and would have prepared the way for any unscrupulous person prepared to exploit the advantage.

We have seen that various commodities have been sold as "custard powders" which were not custard powders at all in the accepted meaning of the term, that some of them were found to be "maggoty", that cereal "foods" were found heavily infested with mites, and so on. One may rightly speak with condemnation of such attempts to exploit the present shortage of supplies, but over and above these stands out prominently the case of a so-called "infants and invalids food" which came under our notice during the year. It is difficult to discuss this matter with restraint, but the facts speak for themselves. In the first place it was offered to the public under the title of "Rotunda Food" and since the Rotunda Hospital is probably the most celebrated of its kind in the world the implication is obvious that the food was associated with that institution and under the patronage of its authorities. At least one can hardly doubt that that is the impression which would be left on the mind of the average purchaser (it may be well to state, at this juncture, that when the sale of this "food" came to the notice of the hospital authorities they immediately put a stop to it). The reverse of the packet gave directions for preparation and formulae were printed for various ages. These commenced from the day of birth. On examination the "food" was found to consist of wheaten flour with a very small amount of dextrin which, presumably, justified the legend of "a dextrinised cereal food for infants and invalids". No doubt the word "dextrinised" was calculated to add a further impressiveness to the claims made for the article. On microscopic examination it was found to be literally swarming with living mites and spreading in a shallow layer these soon became evident to the naked eye by working their way to the surface of the flour. It might be suggested, perhaps, that this phenomenon would make them apparent to the user, but how many women would think of performing such a test? At the hearing of this case the suggestion was made that because the packet contained directions that the "food" was to be boiled for four minutes such procedure would render it safe. So far as could be ascertained there was no wide sale for the product in this area but one does not like to contemplate the probable consequence of feeding cereal mites, boiled or unboiled, to infants at birth. Most adults would baulk at such fare. Taking all the relevant facts into consideration one has no hesitation in adjudging this to have been a very bad case indeed, certainly the worst that has come under my personal notice, accordingly it would appear best to simply repeat that it is difficult to discuss it with restraint.

There is, however, one further point appertaining to it and other "food" cases in which we have found it necessary to prosecute. This is the question of the ultimate responsibility. Much has been made of the fact that the retailer could not know that the packeted food was contaminated and that he sold it as received from the wholesale distributor. The latter, in turn, could make a similar plea, if called upon to account for himself, putting the blame on the manufacturer. In point of fact neither of the latter is ever called upon in these cases and the onus is thrown upon the retailer. But is the latter entirely blameless? In the first place these prosecutions have been taking place for a considerable time and they have been given much publicity so that a retailer with any sense of public responsibility should be on his guard. Furthermore there is the matter of warranty, referred to above by the Analyst, which appears to have been quietly and completely ignored by all parties to the transactions. The Food and Drugs Act afford complete protection to the retailer if he can prove to the court that at the time of purchase he obtained a warranty as to the nature, substance and quality of the article, that he had no reason to believe at the time of the commission of the alleged offence that it was otherwise and that it was then in the same state as when he purchased it. In point of fact warranty has never been pleaded in any of these cases.

Section VI.—Water Supply.

BACTERIOLOGICAL EXAMINATIONS.

In the report for 1931 I outlined the procedure adopted in connection with the examination of the supply at the bacteriological laboratories of University College, Cork, by Prof. W. J. O'Donovan. In the year 1928 Dr. O'Donovan undertook a detailed and systematic examination in which a very large number of samples were studied. Our subsequent procedure has been based on his findings of that year and his recommendations have resulted in a supply of a consistently high degree of purity. In 1944, as in former years, samples were collected and examined on five days during each week. The procedure included an estimate of the number of bacteria growing at 37° C. in 24 hours. The total number of samples examined amounted to 255. The average number of bacteria in 1 c.c. was 2.45 and the number of samples sterile in 1 c.c. was 49.

The routine procedure in connection with these examinations is that samples are collected by the staff of the Public Health Department in special sterilised bottles. These samples are transmitted to the Laboratory for examination. A report is sent daily to the Medical Officer of Health who, in turn, sends a copy to the Water Engineer. In the event of an unsatisfactory sample coming to light in the laboratory the subsequent cycle of events is speeded up by telephonic communications between the various departments pending receipt of a subsequent formal report. In this manner there is exercised a triple check in the purification and distribution of the supply.

In the following tables are summarised the results of the various examinations carried out during the year (and previous years) at the Bacteriological Laboratories, U.C.C., by Prof. O'Donovan and his staff.

Table 73.—Summary of results of routine examinations of water

Total Routine Samples of Tap Water	Bacillus Coli Test					Average daily No. of Bacteria per c.c.	No. of Samples sterile in 1 c.c.
	100 c.c's —ive	100 c.c's +ive	50 c.c's +ive	10 c.c's +ive	1 c.c's +ive		
255	239	—	6	7	3	2.45	49

As stated above, the examinations carried out during the year included an estimation of the numbers of bacteria growing at 37° C. in 24 hours. The findings are set out in the following table and compared with those of 1932 (in which year the figures were first computed) and following years.

Table 74.—Average number of bacteria per cubic centimetre growing at 37° C. from daily sample for each month.

Month	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
January	14.0	1.8	1.1	2.9	1.2	4.1	1.8	1.7	1.8	2.2	3.4	2.3	2.1
February	0.8	1.0	1.6	2.7	1.2	2.8	2.2	1.4	5.3	0.7	2.7	1.2	2.1
March	1.6	1.1	1.3	1.6	0.9	1.4	1.9	2.9	1.8	2.8	7.0	1.3	2.1
April	4.6	1.5	1.4	1.0	1.6	1.2	1.5	2.6	1.0	1.6	2.6	1.7	2.1
May	4.5	1.8	3.4	2.7	1.9	0.7	0.9	1.7	1.3	10.1	2.5	2.4	1.1
June	5.4	4.1	21.2	2.1	1.9	0.2	1.4	21.5	4.4	7.3	3.9	6.0	1.1
July	44.1	19.2	18.4	2.9	5.0	3.7	2.0	6.6	11.8	4.6	5.8	5.1	2.1
August	20.3	14.6	7.4	5.2	1.8	1.0	1.4	6.7	4.2	4.1	4.9	1.2	4.1
September	2.2	2.7	1.7	8.9	3.4	2.8	2.2	3.0	4.5	1.4	6.4	4.7	3.1
October	4.6	2.1	4.0	7.9	1.4	6.4	2.0	30.8	4.5	1.6	2.1	2.3	1.1
November	4.7	1.3	4.2	4.4	2.7	2.8	2.6	9.4	4.5	7.2	4.8	1.9	1.1
December	2.2	3.9	4.0	1.2	3.9	5.4	2.2	3.5	2.8	1.4	3.0	2.5	2.1

Table 75.—Showing average consumption of Water per Head, per Day (in gallons).

Month	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
January ...	39.6	38.5	47.6	42.7	41.5	45.6	44.7	38.5	36.7	35.5	35.2
February ...	40.0	40.2	44.1	43.1	40.3	40.9	43.1	39.1	36.5	35.6	36.8
March ...	39.1	40.1	44.0	41.8	39.5	39.9	39.8	39.2	36.3	36.4	38.1
April ...	39.9	41.2	44.4	41.6	41.4	40.1	39.3	37.9	37.4	38.0	37.6
May ...	39.2	41.2	46.5	45.1	40.5	40.0	40.2	38.9	37.7	37.7	38.8
June ...	42.1	43.6	47.1	45.9	40.5	44.2	44.0	40.8	38.5	39.3	38.5
July ...	42.8	46.8	47.1	45.9	40.9	42.8	44.9	43.1	41.1	43.3	35.0
August ...	40.6	48.1	46.4	46.3	39.8	41.6	42.6	42.6	39.6	40.4	36.3
September ...	41.4	46.5	44.5	45.7	41.3	41.8	41.9	42.0	39.7	42.1	40.8
October ...	38.6	43.5	44.8	45.0	40.6	39.5	38.6	40.4	37.7	40.2	36.7
November ...	39.0	43.4	44.1	43.1	39.7	37.5	36.7	38.8	37.6	35.7	35.9
December ...	40.2	35.2	43.8	42.7	41.8	37.2	39.3	37.5	36.4	37.8	36.8

Table 76—Comparative results of examinations of tap water made during each of the years from 1928 to 1944.

Year	Total number of samples examined	BACILLUS COLI TEST				
		100 c.c.'s -ive	100 c.c.'s +ive	50 c.c.'s +ive	10 c.c.'s +ive	1 c.c. +ive
1928	245	187 (76.3%)	10 (4.0%)	32 (13.1%)	14 (5.7%)	2 (0.8%)
1929	251	153 (60.9%)	44 (17.5%)	40 (15.9%)	9 (3.6%)	5 (2.0%)
1930	268	216 (80.6%)	15 (5.6%)	14 (5.6%)	13 (4.5%)	10 (3.7%)
1931	260	242 (93.0%)	9 (3.5%)	9 (3.5%)	— —	— —
1932	260	245 (94.2%)	3 (1.2%)	12 (4.6%)	— —	— —
1933	253	244 (96.4%)	4 (1.6%)	4 (1.6%)	1 (0.4%)	— —
1934	261	249 (95.4%)	4 (1.5%)	6 (2.3%)	2 (0.8%)	— —
1935	252	235 (93.2%)	3 (1.2%)	7 (2.8%)	5 (2%)	2 (0.8%)
1936	252	244 (96.8%)	2 (0.8%)	5 (2%)	1 (0.4%)	— —
1937	253	235 (92.9%)	11 (4.3%)	6 (2.4%)	0 —	1 (0.4%)
1938	254	251 (98.8%)	1 (0.4%)	0 —	1 (0.4%)	1 (0.4%)
1939	259	254 (98.0%)	1 (0.4%)	3 (1.2%)	1 (0.4%)	— —
1940	261	244 (92.7%)	2 (0.8%)	10 (3.8%)	5 (1.9%)	2 (0.8%)
1941	266	255 (92.1%)	10 (3.7%)	8 (3%)	1 (0.4%)	2 (0.8%)
1942	254	244 (96.1%)	3 (1.2%)	2 (0.8%)	5 (1.9%)	— —
1943	255	253 (99.2%)	—	—	2 (0.8%)	—
1944	255	239 (93.7%)	—	6 (2.4%)	7 (2.7%)	3 (1.2%)

The bacteriological results indicate that a high degree of purity was maintained during the year, indicating a corresponding degree of efficiency in the purification plant. The positive B. Coli findings occurred in 16 tests, 14 of which were during the month of August.

Section VII.—Sanitary Department.

Table 77—Return of work performed by Sanitary Inspectors.

District	INSPECTION OF											SERVED	
	Houses and Yards	Tenement Houses	Tenement Rooms	Infected Dwellings	Common Lodging Houses	Milk Shops	Bakeries	Work Shops	Slaughter Houses	Factories	Out-workers	Justices Orders	Notices to abate nuisance
No 1 ...	9072	271	783	115	6	69	5	120	—	—	—	2	495
No. 2 ...	5317	1361	5246	124	21	—	5	—	3	—	—	8	353
No. 4 ...	4929	607	2382	42	—	105	9	185	29	—	—	4	159
No. 5 ...	6107	3450	198	68	41	—	7	31	—	—	—	4	215
No. 6 ...	3681	2044	3182	100	74	—	10	31	—	—	—	3	386
No. 7 ...	9446	1599	4608	78	31	6	18	94	45	—	—	7	510
Female Inspector	—	—	—	—	—	—	285	2437	—	1200	163	—	6
Totals ...	38552	11332	16399	527	173	180	339	2898	77	1200	163	28	2124

District No. 3 is divided for purposes of supervision between Districts No. 2 and 4.
The number of inspections carried out by the Corporation Drain Tester was 3,267

Table 78.—Summary of Inspections, etc.

			No. of Inspections
Houses, yards, etc.	...	...	38,552
Tenement Houses	...	...	11,332
Tenement Rooms	...	...	16,399
Infected Dwellings	...	...	527
Common Lodging Houses	...	...	173
Bakeries	...	...	339
Workshops	...	...	2,898
Outworkers	...	...	163
Factories	...	...	1,200
Milk Shops	...	...	180
Slaughter Houses	...	...	177
Drains and W.C.'s Tested	...	...	3,267
Number of Notices to abate nuisances	...	...	2,124
Number of Justices' Orders	...	...	28
Amount of fines imposed in respect of same			£5 10 6

Table 79.—Return of Work carried out by **Veterinary Staff** during the year :—

Slaughter Houses	...	...	...	4,865
Butcher Shops	...	...	...	3,151
Tripe Houses	...	...	...	1,445
Meat Markets	...	...	...	1,022
Milk Shops	...	...	...	1,655
Milk Vans	...	...	...	1,361
Cowsheds	...	...	...	71
Sausage Factories	...	...	...	1,399
Hawkers' Stands	...	...	...	1,510
Provision Shops	...	...	...	705
Pork Shops	...	...	...	142
Fish Shops	...	...	...	145
Fruit Shops	...	...	...	118
Cold Stores	...	...	...	33
No of Prosecutions	} See Section V., Prosecutions			
Amount of Fines imposed				

SHOPS (CONDITIONS OF EMPLOYMENT) ACT, 1938.

In the following table are set out particulars of the work done by the Shops Inspectors during the year.

Table 80.—Number of Inspections. 1087

Particulars of Defects Found.

Insufficient Ventilation ...	...	—
Insufficient Heating ...	...	1
No Heating Provided ...	...	25
No Seating Accommodation ...	...	3
Insufficient Sanitary Accommodation		—
No Sanitary Accommodation ...	...	2
No Washing Accommodation ...	...	—
Total ...	...	31

Exemption Orders served (re Sanitary Accommodation)	...	1
Works Notices served	...	12

Generally, there was no difficulty in getting employers to comply with the Act when their attention was drawn to defects. Only in one instance was it necessary to take an offender to court. In this case a fine of 20/- was imposed for non-compliance with the section dealing with sanitary accommodation. 25 shops were found in which there was no provision for heating. It was necessary to serve 12 notices (of which 11 were complied with at once). In the remaining instance the utility company refused the owner. The shortage of fuel, and rationing of gas and electricity caused great trouble and hardship during the year. Cautionary notices were, in three instances, served on proprietors in connection with insufficient seating accommodation for assistants.

Section VIII.—Housing

Houses erected and let	...	...	...	3054
Houses erected and bought out	...	...	...	103
Houses erected and still repaying mortgage	...	...	...	219
Houses in process of erection	...	...	...	90

Assistance to private persons and Public Utility Societies :—

(a) Under Section 6 of the Housing Acts, 1925–28...	£4,685	0	0
(b) Under the Housing Acts	...	...	£10,405 0 0

Assistance under Small Dwellings Acquisition Acts :—

(a) To houses built by Public Utility Societies	...	£103,125	0	0
(b) To houses built by Private Individuals	...	£58,347	10	0

Amount expended by Corporation on Working Class Dwellings,
£1,093,800 0s. 0d.

Table 81.—The number and rents of the various houses built by the Corporation to date.

Location		No. of Houses	Year Built	Weekly Rents (Including Rates)
Madden's Buildings	...	76	1886	4/4 to 6/6
Ryan's	...	16	1886	2/4 to 5/-
Horgan's	...	126	1891	2/8 to 6/5
Roche's	...	128	1892	2/11 to 6/8
Corporation	...	33	1900	5/-
Sutton's	...	46	1905	5/9 to 6/7
Kelleher's	...	50	1906	5/7 to 7/5
Barrett's	...	89	1906	4/3 to 6/7
MacCurtain Villas	...	76	1922	11/4 to 11/10
McSwiney	...	40	1923	11/-
French's	...	30	1923	10/- and 10/8
Capwell	...	148	1928	* 8/6, 10/6 and 14/-
Turner's Cross	...	152	1930	* 8/-, 10/- and 13/-
Turner's Cross Extension	...	168	1932	11/6 and 12/6
Gurranabraher 1	...	252	1934	† 2/6 to 12/6
„ 2	...	108	1935	† 2/6 to 12/6
„ 3	...	78	1936	† 2/6 to 12/6
„ 4	...	82	1936	† 3/6 to 18/-
Commons Road 1	...	170	1936	† 3/6 to 18/-
„ 2	...	106	1937	† 3/6 to 18/-
Bandon Road	...	86	1936	† 3/- to 12/6
Baker's Lane 1	...	266	1938	† 3/6 to 18/-
„ 2	...	242	1940/1	† 3/6 to 18/-
Farranferris 1	...	206	1939	† 3/6 to 18/-
Assumption Road	...	70	1941	16/-
Greenmount	...	210	1941/2	† 3/6 to 18/-
Total		3054	*Exclusive of Rates. †Differential Rents	

Following representations under the 1931 Act to the City Manager by the Medical Officer of Health, Closing or Demolition Orders were obtained on the following houses :—

35, Blarney Street.

57, Green Street.

214, Old Youghal Road.

1a, 1-28 Rock Buildings.

Table 82 is based on a survey of housing needs made during the year.

District	CLASS A		CLASS B		No. New Houses required in Area (exclusive of Overcrowding)	No. New Houses required to deal with Overcrowding
	No. of Hous's	No. of Fam'es	No. of Hous's	No. of Fam'es		
Urban						
1	182	198	251	289	236	80
2	312	420	284	450	536	229
4	228	310	464	714	510	53
5	154	292	38	254	436	39
6	525	717	192	347	842	39
7	385	561	269	354	601	70
Totals ...	1786	2498	1498	2408	3161	510

Urban District No. 3 is included in Districts Nos. 2 and 4.

CLASS A.—Houses unfit for human habitation and INCAPABLE of being rendered fit at a reasonable cost.

CLASS B.—Houses at present unfit but CAPABLE of being made fit at a reasonable cost. (Note—The 38 houses referred to in District No. 5 are tenements).

Section IX.—Port Sanitary Administration

Constitution of the Port Sanitary Authority.

The port was constituted a port sanitary district by the Local Government Board (Ireland) on 27th April, 1903. The Authority consists of twenty members chosen by the respective riparian authorities who elect representatives to the joint board as follows :—

By the Lord Mayor, Aldermen and Councillors of the County Borough of Cork	...	...	12
By the Cork County Council	...	...	6
By the Urban District of Cobh	...	...	2

The South Cork Board of Public Health was dissolved by virtue of Section 36 of the County Management Act of 1940 and its powers, functions and duties transferred to and vested in the Cork County Council.

Apportionment of Expenses.

Cork County Borough contributes	...	62½ per cent. of the total
Cork County Council	...	27½ „
Cobh Urban District Council	...	10 „

Limits of Jurisdiction.

These are defined in Act 18 of the Cork Port Sanitary Order No. 3 as follows :—“The jurisdiction of the said Port Sanitary Authority shall extend to the whole of that part of the customs port of Cork that lies between Power Head and Cork Head in the County of Cork, together with the waters of the said port of Cork within such limits and all docks, basins, harbours, creeks, rivers, channels, bays and streams within the aforesaid limits and the places for the time being appointed as the customs boarding station or stations for such part of the said port and the places for the time being appointed for the mooring or anchoring of ships for such part of the said port under any regulations for the prevention of the spread of diseases issued under the authority of the statutes in that behalf.”

Issue of Deratisation and Deratisation-exemption Certificates.

By letter dated 12th Dec., 1942, the Minister for Local Government and Public Health authorised the issue of the above certificates in pursuance of the Public Health (Deratisation of Ships) Regulations, 1930. This is, therefore, now an approved port for the issue of such certificates. During the year 1 Deratization Certificate and 5 Deratization Exemption Certificates were issued.

Quarantine Anchorage.

Anchorage for vessels with cases of infectious disease on board is between the town of Cobh and the Spit buoy.

Cuskinny Intercepting Hospital.

The intercepting hospital is situated about two miles east of the town of Cobh and about half-a-mile from Cuskinny Strand on the northern shore of the harbour. The hospital was built in the year 1880 by the old Cork Board of Guardians and was acquired by the Port Sanitary Authority in the year 1902 from the Commissioners of Public Works (Ireland) and since has been kept in good repair and condition. During the past year minor repair work was carried out to the fresh water supply tanks built on the land of Mr. Hugh French. The function of the hospital is to deal with the more serious types of infectious disease (e.g., small pox, plague, cholera, typhus, etc.) should any such cases arrive in the port necessitating hospital treatment or isolation. Infected vessels would moor at the quarantine anchorage, the patient being removed by motor launch and landed at Cuskinny Strand or some suitable slipway and transferred to the Authorities' ambulance for transport to the hospital.

Procedure for granting Pratique.

Deepladen vessels arriving in the lower harbour and bound for Cork may be detained there for tide. Such vessels are boarded by an officer of the Customs and Excise, who puts the usual questions to the master in regard to the prevalence of illness on board and especially in relation to cholera, plague and yellow fever or as to the prevalence of same at any ports of call en route. If the answers are in the *negative*, free pratique is granted and the vessels allowed to proceed to her moorings. If any answers are in the affirmative, pratique is not granted until the vessel has been visited by the Port Medical Officer. Vessels of light draught able to proceed to the City at any state of the tide are hailed while passing Cobh and if the answers are satisfactory are allowed to proceed to Cork where they are boarded by the Customs Officer and the usual questions are put. In addition, instructions have been sent to all shipping agents for companies using the port of Cork that masters of vessels approaching the port with cases of infectious disease on board are to notify the Authority by wireless.

Measures against Rodents.

All vessels from foreign ports are boarded immediately on arrival by the Port Sanitary Officer who, after satisfying himself as the documents relative to health and deratisation certificates proceeds to the examination of the vessel in regard to rat infestation, particular attention being paid to cargo surfaces as soon as the holds have been opened up. The various cargo compartments are searched for sick or dead rats, which, if found, are submitted at once for bacteriological examination. So far a positive result has not been obtained, but such a result would necessitate suspension of discharge of cargo. In addition, traps are laid in various parts of the ship and rats caught are submitted to examination. Precautions adopted to prevent migration of rodents ashore, comprise the placing of rat guards on all mooring ropes and wires of all except cross-channel vessels. In addition, vessels from plague infected areas have to keep their gangways lime-washed daily and well lighted at night whilst alongside the quays.

The following measures would be adopted in this port in the event of a vessel being found effected with human or rodent plague to prevent egress from ship to shore :—

- (1) Vessel would be breasted off at least six feet from the quayside by placing wood floats between it and the quay wall.
- (2) Besides the adjusting of rat guards, moorings would be parcelled with old canvas on shore side of rat guards and same smeared with Stockholm tar.
- (3) Gangway would be required to be lifted from sunset to sunrise.
- (4) Intensive trapping and examination of rodents caught in the immediate neighbourhood of the ship's berth.

Of all diseases liable to be introduced by shipping, *plague* is without doubt the most to be feared, hence the necessity for the stringent precautions in regard to its prevention. Several of the ports from which shipping arrives in Cork are situated in countries in which plague is endemic, even though the ports themselves may not actually be infected at the time of departure. There is, however, the ever present danger of the importation of *plague infected rats* from such ports and it is in consequence of this danger that so much importance is attached to the systematic trapping and examination of rats taken on vessels coming into this port. As there is always a certain amount of migration of rats from ships to the shore while vessels are tied up at their moorings it is also necessary to maintain a constant sampling and examination of the shore rats taken in warehouses adjacent to the quays. It will be noted from the appropriate tables that of 34 rats taken during the past year, 21 were submitted to post-mortem examination and that all gave negative results. In the previous year 32 were trapped, of which 23 were examined, also with negative results. The rats are examined in the first instance by the Inspector, under the supervision of the Chief Veterinary Officer. In the event of a suspicious finding, the carcase would be referred to the Bacteriological Department of University College for a further examination.

The fact that so many rats have been examined and found negative is not by any means an indication for relaxation in the measures which have been adopted in connection with their reduction and the prevention of plague. One infected rat coming ashore might be the cause of an outbreak among the shore population and from time to time we are reminded of this ever present danger by the discovery of plague infected rats in other ports. Plague is rarely transferred from one human being to the other, such transfer requires an intermediary and the agent is almost always the rat flea. It is only when an epizootic breaks out among the rats and large numbers die that the infecting flea seeks a new host and may transfer his attention to human beings. In countries where the disease is endemic, outbreaks among human beings are always heralded by excessive mortality among rats. Excessive rat mortality on board ship is a very suspicious sign of plague infection and masters are bound to notify any such happening at the port of arrival. Plague is such a deadly disease that no relaxation in preventive measures can be tolerated and for this reason it is necessary to keep up a constant watch over vessels arriving from foreign parts and for systematic examination and extermination of rats.

Water Supply.

Drinking and boiler water is obtained directly from the public supply. There are upwards of 80 such hydrants available in this port. As mentioned in the section dealing specifically with the supply to the City, the water is subjected to systematic sampling and bacteriological examination throughout the year. 255 samples were examined during the year and the results indicated that the water was of first-class quality.

Table 83.—Return of Shipping entering the Port since 1930.

Year	Number of Arrivals			Tonnage		
	Foreign	Coastwise	Totals	Foreign	Coastwise	Totals
1930	297	1,636	1,933	364,650	617,783	982,433
1931	272	1,566	1,838	345,430	647,327	992,757
1932	315	1,375	1,690	352,459	602,509	954,968
1933	399	893	1,292	371,757	462,047	833,804
1934	404	817	1,221	407,188	463,169	870,357
1935	285	1,015	1,300	323,631	525,062	848,693
1936	249	1,053	1,302	277,779	583,922	861,701
1937	250	1,098	1,348	300,730	594,396	895,126
1938	239	1,084	1,323	280,403	598,114	878,517
1939	202	1,074	1,276	274,660	521,801	796,461
1940	116	1,053	1,169	174,087	373,841	547,928
1941	—	522	522	Nil	203,976	203,976
1942	Figures not available.					
1943	do.			do.		
1944	do.			do.		

Table 84.—Summary of Inspections and Defects.

Description	Number of Arrivals	Tonnage of Arrivals	Number Inspected	Number Defective	No. of Defects Remedied
<i>Foreign</i> Steamers	Figures not available		12	8	8
<i>Coastwise</i> Motor	Figures not available		200	48	42
Total	Figures not available		212	56	50

Table 85.—Return of Vessels entering the Port which were dealt with by the Department each month during 1942.

Month	Foreign	Coastwise	Total
January ...	—	25	25
February ...	—	29	29
March ...	4	27	31
April ...	2	19	21
May ...	—	14	14
June ...	—	9	9
July ...	2	10	12
August ...	1	12	13
September ...	—	4	4
October ...	1	14	15
November ...	1	17	18
December ...	1	20	21
Totals ...	12	200	212

Table 86.—Return of Imports and Exports from 1930.

Year	Imports (tons)	Exports (tons)
1930	906,340	120,610
1931	861,782	85,704
1932	890,377	104,884
1933	710,149	89,319
1934	784,174	66,606
1935	743,939	63,219
1936	788,545	73,673
1937	829,704	78,530
1938	802,238	65,147
1939	900,644	105,659
1940	734,888	74,517
1941	262,222	37,448
1942	Figures not available	
1943	do.	do.
1944	do.	do.

Table 87.—Sanitary defects and nuisances dealt with during 1944.

Dirty Focsles ...	...	...	...	...	27
Dirty Store Rooms	...	...	...	...	4
Damp Quarters ...	...	...	...	...	6
Leaky Deckheads	...	...	...	...	8
Defective Port Frames and Discs	...	...	...	...	24
Defective W.C. Fittings	...	...	...	...	4
Defective Bogie Stoves, Galley Stoves and Funnels	...	...	...	...	2
Defective Waste Pipes	...	...	...	...	1
Defective Steam Heaters	...	...	...	...	1
Defective Lockers...	...	...	...	...	3
Verminous Quarters	...	...	...	...	4
Foul Water Closets	...	...	...	...	16
Dirty Refrigerators	...	...	...	...	2
Total ...					102
Verbal Notices Given	...	...	...	...	46
Written Notices Left on Board	...	...	...	...	11
Statutory Notices Served	...	...	...	...	1
Notice to Agent ...	...	...	...	...	1
Total ...					59

A total of 843 inspections of vessels were carried out during the year.

TABLE 88—RATS TRAPPED ASHORE.

Month	No.	Mus Decumans	Mus Alexandrinus	Mus Rattus	Species Unknown	No. of P.M. Exam.*
Jan. ...	1	1	—	—	—	1
Feb. ...	1	1	—	—	—	1
March ...	1	—	1	—	—	—
April ...	3	2	1	—	—	3
May ...	1	1	—	—	—	1
June ...	—	—	—	—	—	—
July ...	—	—	—	—	—	—
August ...	1	1	—	—	—	1
Sept. ...	—	—	—	—	—	—
Oct. ...	9	1	2	—	6	3
Nov. ...	1	—	1	—	—	1
Dec. ...	1	1	—	—	—	—
Total ...	19	8	5	—	6	11

* All P.M. Examinations proved Negative.

TABLE 89—RATS TRAPPED ON VESSELS

Month	No.	Mus Decumans	Mus Alexandrinus	Mus Rattus	Species Unknown	No. of P.M. Exam.*
January ...	—	—	—	—	—	—
Feb. ...	—	—	—	—	—	—
March ...	4	1	2	1	—	3
April ...	4	—	2	2	—	2
May ...	—	—	—	—	—	—
June ...	—	—	—	—	—	—
July ...	7	—	—	7	—	5
August ...	—	—	—	—	—	—
Sept. ...	—	—	—	—	—	—
October ...	—	—	—	—	—	—
Nov. ...	—	—	—	—	—	—
Dec. ...	—	—	—	—	—	—
Totals	15	1	4	10	—	10

In addition 7 Rats were destroyed on s.s. "Irish Larch" as result of Fumigation by SO₂.

* All P.M. Examinations proved negative.

Section X—Meteorology.

I am indebted to Prof. H. N. Walsh, University College, for the following particulars concerning the weather conditions during the year, and more especially for the trouble which he has gone to to bring up to date the Tables which follow.

Table 90.—Rain fall in inches for each quarter and for each year, 1901–1944.

Year	I.	II.	III.	IV.	Total
1901	10.07	7.62	10.75	10.12	38.56
1902	9.29	7.80	7.31	12.88	37.28
1903	16.89	8.80	14.95	12.13	52.77
1904	13.63	5.71	10.41	7.47	37.22
1905	11.70	6.59	9.82	9.14	37.25
1906	9.46	5.76	5.58	9.03	29.83
1907	4.06	10.10	7.40	16.02	37.58
1908	7.67	5.28	10.16	9.53	32.64
1909	7.61	9.94	2.62	9.74	29.91
1910	10.70	7.24	8.64	11.98	38.56
1911	5.94	6.89	7.87	18.47	39.17
1912	13.46	7.07	9.30	7.05	36.88
1913	13.92	10.32	7.73	12.49	44.46
1914	13.72	3.60	9.85	15.20	42.42
1915	11.62	6.27	9.26	15.68	42.83
1916	8.68	9.19	7.37	21.11	46.35
1917	8.75	6.93	9.40	7.25	32.33
1918	14.75	5.59	13.37	13.73	47.44
1919	10.78	7.11	6.77	6.97	31.63
1920	11.75	14.12	8.90	13.24	48.01
1921	8.04	2.22	8.71	9.90	28.87
1922	13.08	5.45	10.57	8.15	37.25
1923	14.41	5.38	10.71	10.54	41.04
1924	12.32	9.76	11.82	17.66	51.56
1925	10.31	10.49	8.43	11.92	41.15
1926	15.42	8.19	4.68	9.55	37.84
1927	12.20	6.16	11.45	16.06	45.87
1928	16.14	13.86	8.31	17.35	55.66
1929	11.28	6.72	7.27	20.91	46.18
1930	14.98	5.91	12.67	14.35	47.91
1931	12.30	10.35	8.34	13.27	44.26
1932	8.54	8.11	7.31	13.62	37.58
1933	8.61	8.74	5.22	6.47	29.04
1934	9.66	7.13	11.49	13.75	42.03
1935	5.33	9.33	9.98	10.97	35.61
1936	16.77	4.51	9.13	9.88	40.29
1937	19.67	6.12	7.90	8.52	42.21
1938	9.22	7.38	7.99	15.14	39.73
1939	13.01	4.94	7.43	16.53	41.91
1940	14.74	6.64	3.80	17.96	43.14
1941	12.82	5.47	5.73	14.40	38.42
1942	11.39	8.43	8.21	8.17	36.20
1943	11.59	7.47	8.80	10.99	38.85
1944	4.79	5.16	11.43	16.34	37.72

The mean temp. for 1944 was 50.5° F. The warmest day was 30th May with a maximum shade temp. of 79° F. The warmest night was 18th August with a minimum shade temp. of 64° F. The coldest night was February 29th with a minimum shade temp. of 24° F.

Table 93—Temperature at Cork (in the Shade) from 1884 to Present Year.

YEAR	January			February			March			April			May			June			July			August			September			October			November			December			Mean Temper- ature of Year
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean				
	Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			
1884	55-31-45.5	54-31-46.5	54-30-45.5	57-34-48.5	68-37-55.5	73-40-59.0	72-45-61.5	74-44-62.2	71-45-58.5	60-34-52.2	60-28-45.2	55-28-41.3	51.8																								
1885	54-27-41.7	50-27-43.5	54-30-43.5	62-30-48.2	61-34-52.0	73-42-59.2	80-43-62.0	74-46-60.5	65-36-55.2	57-35-46.7	58-31-46.7	54-25-39.5	49.9																								
1886	52-23-38.0	52-28-41.5	57-25-41.5	65-32-46.7	65-33-50.5	76-45-57.7	79-44-59.5	76-45-60.5	65-39-56.5	64-37-51.5	58-29-45.0	50-22-39.0	49.0																								
1887	54-30-43.0	54-27-43.5	58-25-42.0	62-26-44.5	70-35-52.5	81-47-62.5	80-47-64.2	76-42-60.7	69-39-55.0	61-28-48.2	54-24-42.0	55-25-39.7	50.0																								
1888	54-26-43.0	52-26-38.2	56-26-40.7	59-28-46.5	68-39-53.2	73-39-57.0	70-40-57.5	74-42-60.0	66-37-55.5	63-31-50.5	58-27-48.0	56-28-44.7	49.6																								
1889	58-26-43.0	57-27-42.2	59-29-44.7	58-32-46.7	68-40-48.0	77-46-58.0	77-45-60.0	72-43-58.7	70-38-57.2	59-32-48.2	60-29-48.2	56-29-44.2	49.9																								
1890	55-29-44.0	54-29-42.5	58-28-45.2	61-29-48.0	70-39-53.0	73-45-58.0	72-43-58.4	72-40-58.4	75-42-50.2	66-34-53.0	60-24-44.6	52-25-39.0	50.3																								
1891	53-23-40.3	56-31-45.7	61-22-42.1	60-31-46.9	73-34-50.0	78-40-58.6	75-44-59.0	73-40-58.0	71-39-56.5	61-29-48.5	53-28-42.6	55-26-44.0	49.4																								
1892	55-20-39.2	55-25-42.3	57-24-40.0	62-27-47.2	66-37-53.1	73-39-56.2	73-44-59.0	70-44-60.0	68-37-55.0	56-28-45.0	56-31-47.2	53-27-42.7	49.7																								
1893	53-21-40.5	53-24-42.5	60-34-47.5	67-31-51.5	69-43-56.5	80-46-59.8	74-46-61.2	77-45-61.7	71-33-55.2	63-31-49.0	59-30-43.0	53-26-42.5	50.9																								
1894	53-11-39.5	56-28-44.6	57-33-44.8	62-37-49.0	67-34-50.0	71-38-57.0	72-45-69.0	71-44-57.5	66-36-53.5	66-33-49.5	59-28-46.0	54-29-44.5	49.6																								
1895	47-23-36.5	48-22-34.5	63-27-44.0	61-31-48.2	70-33-53.0	74-40-58.7	70-44-58.7	70-43-59.0	71-46-58.9	62-28-46.0	56-30-45.0	54-26-42.5	48.7																								
1896	53-26-43.0	55-32-45.2	56-31-46.5	65-34-50.0	74-33-56.2	82-47-60.5	75-42-60.0	73-41-57.5	68-41-55.0	65-30-43.2	53-29-42.0	53-23-40.0	49.9																								
1897	50-22-37.5	56-32-46.0	55-31-44.0	58-29-46.0	70-35-51.0	75-41-59.0	77-43-61.0	80-45-59.5	67-38-53.2	61-37-52.2	58-32-47.2	53-29-44.0	50.1																								
1898	55-32-45.8	54-26-41.5	58-28-41.0	60-31-47.7	67-34-51.0	74-39-56.8	78-44-59.5	73-46-69.5	72-40-58.7	64-34-51.3	59-30-44.0	55-27-45.4	50.3																								
1899	53-26-40.1	52-29-43.0	64-22-43.0	63-29-46.6	65-34-50.6	78-41-59.5	76-45-60.0	76-46-62.3	71-31-54.1	60-29-47.9	55-39-47.2	51-24-40.0	49.5																								
1900	54-27-39.5	52-14-35.4	51-25-38.6	65-33-47.8	68-36-50.7	75-42-56.8	75-45-60.1	71-42-57.0	67-38-55.1	63-32-48.1	57-29-41.7	52-26-42.3	47.9																								
1901	49-24-37.8	49-22-35.8	51-34-38.9	59-39-45.0	68-34-51.9	72-37-54.2	76-46-60.2	75-41-57.5	67-39-54.0	61-31-47.0	54-19-41.2	51-26-37.5	46.8																								
1902	50-25-40.6	52-19-36.6	57-30-44.0	57-29-44.0	67-31-47.3	74-38-53.1	74-40-56.0	68-40-56.2	68-36-53.6	62-34-57.4	55-30-43.5	52-25-39.0	46.8																								
1903	50-22-39.5	52-29-42.7	52-29-41.1	57-27-43.7	69-36-50.4	70-35-54.0	74-43-56.6	68-40-54.3	64-36-52.4	60-28-46.2	55-24-41.0	48-22-37.0	46.4																								
1904	49-27-38.5	49-24-37.2	52-25-39.1	60-32-44.4	65-32-48.6	69-49-54.2	73-40-57.3	69-41-56.4	63-38-52.5	63-35-50.2	57-25-43.5	52-28-43.0	47.4																								
1905	51-29-42.0	55-23-41.6	53-30-42.6	58-33-46.4	68-36-52.6	75-42-58.0	76-45-60.0	70-42-55.5	68-39-53.6	62-26-45.0	52-23-39.0	50-30-43.3	48.3																								
1906	50-28-41.1	47-25-38.0	58-30-42.6	59-29-44.3	64-33-49.7	75-42-57.8	74-44-59.0	73-44-59.8	71-40-55.0	63-29-49.0	55-29-44.0	53-20-39.0	48.4																								
1907	49-18-39.6	52-25-38.4	57-32-45.8	64-30-45.4	65-35-48.7	69-49-53.5	78-41-58.6	68-43-57.0	68-38-57.0	60-28-45.9	52-29-49.8	49-27-39.5	47.5																								
1908	52-23-38.5	53-31-43.0	52-29-40.4	56-26-43.4	68-37-52.0	71-40-55.7	80-46-59.5	74-44-58.2	67-38-53.5	64-33-53.0	56-28-45.7	51-30-41.1	49.0																								
1909	51-28-40.3	52-22-39.6	56-23-40.6	61-31-46.8	66-33-51.0	69-41-54.0	71-45-58.6	79-43-59.7	65-37-52.3	64-26-49.0	55-20-38.2	50-24-38.3	47.4																								
1910	50-25-38.5	53-27-39.0	55-30-41.0	60-29-43.9	68-34-51.4	66-44-55.5	70-45-57.5	69-46-57.0	68-37-54.5	62-34-49.0	53-24-39.0	50-28-41.5	47.3																								
1911	50-27-39.2	53-22-39.7	56-29-40.3	59-27-40.9	70-37-52.2	72-45-56.7	79-44-61.0	73-45-60.2	73-39-54.3	57-31-48.0	53-26-39.9	49-27-39.3	48.0																								
1912	50-27-40.8	50-32-40.0	57-32-41.8	61-32-47.0	63-36-51.2	66-32-52.9	74-44-55.7	61-36-51.3	68-36-53.5	61-31-50.1	59-33-49.2	54-30-44.3	48.1																								
1913	52-27-40.6	54-32-43.6	55-34-45.0	59-29-44.7	64-36-49.5	75-38-54.0	74-47-55.9	74-40-58.8	72-44-57.6	61-32-51.5	60-34-48.9	56-33-45.6	49.6																								
1914	54-43-48.5	55-50-53.0	55-50-52.4	60-53-56.9	62-55-58.2	70-59-64.4	69-53-64.8	67-63-64.6	66-60-62.6	62-55-58.4	58-50-53.4	53-46-50.0	47.2																								
1915	50-37-43.5	45-25-35.0	58-35-46.5	50-35-42.5	62-40-51.0	64-40-52.0	62-42-52.0	65-43-54.0	62-40-51.0	55-37-46.0	48-28-38.0	40-28-34.0	44.9																								
1916	50-36-43.3	47-30-39.1	45-30-37.8	49-36-42.6	60-34-47.4	55-40-47.8	66-40-53.4	65-49-57.7	60-40-50.0	56-36-46.4	47-32-40.4	40-24-32.5	44.8																								
1917	52-22-36.0	50-24-35.0	52-28-39.25	59-30-41.5	70-32-50.25	66-40-52.25	68-40-55.4	70-46-56.12	66-26-51.25	56-36-40.8	58-30-44.5	56-26-38.4	45.7																								
1918	50-22-36.0	54-32-43.0	56-26-41.0	64-32-48.0	67-33-50.0	76-36-56.0	76-40-58.0	74-40-57.0	64-36-50.0	62-30-46.0	54-26-40.0	54-26-40.0	47.0																								
1919	54-24-36.0	50-26-39.0	50-24-37.8	56-30-43.2	72-34-51.2	68-36-51.0	74-40-56.0	80-40-57.5	64-34-49.7	62-36-44.6	56-14-34.5	54-28-41.0	46.0																								
1920	52-30-40.0	50-30-39.8	50-30-41.3	56-36-46.3	66-28-46.3	68-34-53.7	66-42-53.5	66-40-53.2	68-32-51.2	60-36-48.5	56-24-41.6	50-20-36.0	45.9																								
1921	60-25-44.7	50-24-36.2	50-24-37.5	58-26-41.5	70-34-48.4	76-32-55.0	80-40-60.0	74-38-54.2	64-32-48.2	62-28-47.4	46-20-39.7	50-28-41.2	46.2																								
1922	56-20-49.1	48-24-37.2	46-24-34.5	48-22-34.8	80-30-61.0	74-40-54.0	72-38-67.2	72-36-54.0	66-36-52.3	60-20-56.0	66-30-40																										

SUNSHINE.

Total bright sunshine for 1944 was 1209.1 hours.

	Hours		Hours
1930	... 1,478.1	1937	... 1,259.4
1931	... 1,313.8	1938	... 1,350.9
1932	... 1,282.5	1939	... 1,393.1
1933	... 1,465.8	1940	... 1,493.9
1934	... 1,430.1	1941	... 1,246.5
1935	... 1,442.0	1942	... 1,482.5
1936	... 1,357.5	1943	... 1,093.8
		1944	... 1,209.1

Table 91.—Mean Temperature (°F.) for each quarter and for each year from 1901 to 1944, inclusive.

Year	I.	II.	III.	IV.	For whole year
	°	°	°	°	°
1901	37.5	50.4	57.2	41.9	46.8
1902	40.4	48.1	55.3	43.3	46.5
1903	41.1	49.4	54.4	41.4	46.6
1904	38.3	49.1	55.4	45.6	47.1
1905	42.1	52.4	56.9	42.4	48.4
1906	40.6	50.6	57.9	44.0	48.3
1907	41.3	49.1	57.5	42.1	47.5
1908	40.6	50.4	57.0	46.6	48.6
1909	40.2	50.6	56.9	41.8	47.5
1910	39.5	50.3	56.3	43.2	47.4
1911	39.7	51.3	58.5	42.4	47.5
1912	40.9	50.4	53.5	47.9	48.2
1913	43.0	49.4	57.4	48.7	49.6
1914	40.3	51.4	56.7	43.5	48.1
1915	38.3	49.2	52.7	39.2	44.9
1916	40.0	45.9	53.7	39.7	44.8
1917	36.7	48.1	54.2	43.9	45.7
1918	40.0	51.3	55.0	42.0	47.0
1919	37.6	48.5	54.4	40.0	45.5
1920	40.3	48.9	52.6	42.0	45.9
1921	39.6	48.3	54.3	42.7	46.2
1922	40.2	49.9	57.8	46.4	48.6
1923	44.0	50.7	58.4	43.8	49.2
1924	42.6	51.4	56.7	47.6	49.6
1925	43.3	51.8	57.9	44.5	49.4
1926	45.1	52.1	61.1	44.0	50.6
1927	44.1	52.2	58.5	45.5	50.1
1928	44.7	52.0	58.0	46.4	50.3
1929	43.2	52.3	59.4	45.7	50.1
1930	40.7	52.9	57.8	46.5	49.5
1931	42.3	53.1	58.2	46.7	50.1
1932	43.2	52.1	59.7	46.4	50.4
1933	42.3	54.5	62.1	44.9	51.0
1934	42.4	52.8	59.8	47.6	50.6
1935	44.1	52.7	59.4	44.2	50.1
1936	42.8	52.6	59.9	47.1	50.5
1937	42.6	53.8	59.2	44.9	50.1
1938	45.3	52.3	58.4	46.6	50.6
1939	44.6	53.9	59.8	45.9	51.0
1940	43.2	55.6	58.9	45.4	50.8
1941	40.4	51.8	60.0	47.5	49.9
1942	42.6	53.4	59.6	45.5	50.2
1943	44.9	53.8	57.0	46.3	50.5
1944	44.4	53.9	58.7	45.3	50.5

BAROMETER.

The mean reading for 1944 was 30.03 ins. The highest was 30.78 ins., on the 8th March. The lowest was 28.92 ins., on the 17th Dec. (Observations at 9 a.m. G.M.T. only).

Appendix I.

OPERATION OF THE SCHEME FOR THE TREATMENT OF VENEREAL DISEASES.

Table 94—Record of Work Done in the V.D. Treatment Centre.

	Cork City		Cork County		Other Districts		Total		Total Male and Female Cases
	M.	F.	M.	F.	M.	F.	M.	F.	
<i>New Cases</i> (1st time) ...									
Syphilis ...	15	36	14	15	—	1	29	52	81
Soft Chancre ...	1	—	—	—	—	—	1	—	1
Gonorrhoea ...	27	8	10	4	—	—	37	12	49
Not V.D. ...	54	32	24	6	—	—	78	38	116
Total ...	97	76	48	25	—	1	145	102	247
<i>Total Attendances :—</i>									
Syphilis ...	1265	2144	586	312	—	1	1851	2457	4308
Soft Chancre ...	5	—	—	—	—	—	5	—	5
Gonorrhoea ...	239	196	79	24	—	—	318	220	538
Not V.D. ...	80	54	36	13	—	—	116	67	183
Total ...	1589	2394	701	349	—	1	2290	2744	5034
<i>Cured :—</i>									
Syphilis ...	17	4	4	1	—	—	21	5	26
Soft Chancre ...	1	—	—	—	—	—	1	—	1
Gonorrhoea ...	29	6	7	—	—	—	36	6	42
Not V.D. ...	—	—	—	—	—	—	—	—	—
Total ...	47	10	11	1	—	—	58	11	69
<i>Pathological Exams. :—</i>									
Wassermanns ...	156	144	64	20	—	—	220	164	384
Gonococci ...	26	35	8	7	—	—	34	42	76
Kahn ...	2	10	—	1	—	—	2	11	13
Total ...	184	189	72	28	—	—	256	217	473
<i>Therapy :—</i>									
Stabilarisan or other									
Arsenicals ...	757	1278	379	205	—	1	1136	1484	2620
Bismuth Preparations	639	608	300	80	—	—	939	688	1627
Irrigations ...	42	—	17	—	—	—	59	—	59
Douches ...	—	17	—	10	—	—	—	27	27
Sulphonamides	188	35	59	6	—	—	247	41	288
Iodides ...	12	2	5	1	—	—	17	3	20
Vaccines ...	25	65	—	—	—	—	25	65	90
Total ...	1663	2005	760	302	—	1	2423	2308	4731

The total number (130) of new cases, male and female, of Gonorrhoea and Syphilis shows an appreciable reduction on last years figure of 192. 29 new cases of syphilis in males were treated. The figure for last year was 55. The new cases of gonorrhoea in males remained the same as last year, viz. 37. The number of new cases of syphilis in females was 52, but three less than last year. Gonorrhoea in females shows a marked reduction from 42 last year to 12 this year. The total attendances at both clinics were up by nearly one thousand this year and this increase was almost entirely due to female attendances.

Last year I called attention to the disquieting position of venereal disease in Cork (and there is no reason to believe that the situation depicted was confined to this region). Four years ago we had no active syphilis. Since 1942 there has been a very marked increase and this year (while the figure for males has fallen) the female cases have remained practically the same. We have therefore a reservoir of infection the spread from which is due to the activities of what appears to be a widening circle of individuals of low moral type. These figures and their implications make unpleasant reading. They are indicative of a lowered moral order, of a departure, hitherto unobserved, from the ordinary standards of right and wrong. I have previously referred to the spread of these diseases as a social poison and this does not overstate the case. There is no need to labour the consequences which will ensue if this trend remains unchecked, family dissension, diseased offspring and the influence of such conduct on young and impressionable. Elsewhere in this report I advert to the fact that, for the first time in our records, deaths from congenital syphilis figure in our mortality tables. These deaths are unquestionably the first fruits of this lowering of our moral standards.

Table 95.—Record of *new cases* treated annually at Centre.

Period	Syphilis	Soft Chancre	Gonorrhoea	Not V.D.	Total
1937	29	2	34	30	95
1938	29	—	42	34	105
1939	37	1	27	42	107
1940	34	8	31	46	118
1941	25	6	42	68	141
1942	54	4	63	67	188
1943	113	4	79	101	297
1844	81	1	49	116	247

Table 96.—Record of new cases treated during 1944 (non V.D. Cases not included).

Period	Males	Females	Total
Jan.	6	6	12
Feb.	10	6	16
Mar.	4	5	9
Apr.	9	5	14
May	4	7	11
June	6	7	13
July	4	3	7
Aug.	7	5	12
Sept.	4	11	15
Oct.	7	5	12
Nov.	4	4	8
Dec.	2	—	2
Totals	67	64	131

Table 97.—Monthly attendances at V.D. Centre, 1944.

Period	Males	Females	Total
Jan.	203	238	441
Feb.	263	159	452
Mar.	223	266	489
Apr.	173	243	416
May	196	294	490
June	160	244	404
July	167	264	431
Aug.	212	229	441
Sept.	226	277	503
Oct.	207	192	399
Nov.	152	171	323
Dec.	108	137	245
Totals	2290	2744	5034

The facilities afforded to provide practitioners under the scheme were availed of by ten doctors during the year. The particulars set out in table 98 relate to the patients treated by them and the results obtained. The number of ampoules supplied to them was 722 (in comparison with 789 provided in 1943).

Table 98.—Particulars of cases treated by Private Practitioners.

Form of Disease	Number of Cases		Cured	Discontinued Treatment	Remaining under Treatment	Wassermann or other Tests
	Males	Fem's				
Syphilis ...	58	18	14	13	49	80
Gonorrhoea ...	26	7	29	1	3	23
S. Chancre ...	2	—	2	—	—	—

Appendix II.

OPERATION OF THE COUNTY BOROUGH SCHEME FOR THE WELFARE OF THE BLIND.

The following are the terms of the Scheme drafted for this purpose and now in operation within the Borough :—

In this scheme the term "Blind Person" shall mean any inhabitant of the County Borough who is so blind as to be either unable to perform any work for which eyesight is essential, or unable to continue his or her ordinary occupation; the term "The Corporation" shall mean the Lord Mayor, Aldermen and Burgesses of the County Borough of Cork, acting by the City Manager; the term "The Minister" shall mean the Minister for Local Government and Public Health.

2. The Corporation will establish and maintain a Register in which shall be entered the name and address, age, sex, religion and other necessary particulars of every blind person who shall produce a certificate from a recognised Ophthalmic Surgeon that the acuity of vision of such person (refractive error being corrected) is below 1/20th normal (3/60th Snellen), or that such person is so blind as to be unable to continue his or her ordinary occupation. Any person between the ages of 30 and 70 may, however, be registered without producing such certificate on furnishing evidence of being in receipt of a pension in pursuance of Section 6 of the Old Age Pensions Act, 1932. The Register shall be kept written up-to-date, and shall be revised annually in the month of January. The Corporation shall be empowered to pay reasonable fees to Ophthalmic Surgeons for certifying in cases of necessitous persons.

3. Arrangements will be made by the Corporation with the Authorities of one or more of the Institutions for the Blind mentioned in the Schedule hereto on such terms as may be approved by the Minister for the following purposes :—

- (a) the education or industrial training of suitable blind persons between the ages of five years and thirty years;
- (b) the employment in workshops for the Blind of blind persons suitable for such employment, their maintenance in a Hostel, and the augmentation of their wages;
- (c) the maintenance in Homes of blind persons who, owing to age or infirmity, are incapable of work.

4. The Corporation may in cases of unemployed and necessitous blind persons ineligible for education or industrial training under Article 3 (a) of this Scheme and living in their own homes or in lodgings, grant assistance to such persons in accordance with the following scale :—

Classification of Blind Persons	Amount of weekly allowance
(a) Blind person over 15 years and under 30 years of age	12s. 6d.
(b) Blind person 30 years of age and upwards	... 6s. 0d. (with pension)
(c) Married man under 30 years of age with wife dependent on him ... ..	... 19s. 0d.
(d) Married man 30 years of age and upwards with wife dependent on him ... ..	... 12s. 0d. (with pension)
(e) Additional allowance for each child ... ..	... 2s. 6d.

In considering the grant of allowances on this scale to the classes of blind persons at (a) and (c) above, the Corporation will not take into account casual earnings of any such person where they are satisfied that such earnings do not exceed six shillings per week.

5. Nothing in this Scheme is to be construed as giving blind persons irrespective of their means or conduct, a right absolute to assistance. The Corporation will not grant an allowance under Article 4 above to any blind person under 30 years of age who is capable of instruction and who declines without a satisfactory reason to take advantage of the facilities for education, training or employment under the Scheme, or who is by conduct or otherwise deemed unsuitable for assistance. No habitual mendicant shall be granted an allowance under the Scheme unless the practice of mendicancy is discontinued. No person shall be eligible to receive assistance under this Scheme who shall not have been resident within the County Borough for two years previous to date of application for assistance.

6. The Corporation may incur such expenditure in the execution of this Scheme as the Minister may from time to time approve.

7. This Scheme shall come into operation on the 1st October, 1932, and shall continue for a period of three years, but may during the period with the consent of the Minister be modified, extended or revoked by the Corporation, and with the like consent may be continued for such further time as may be deemed necessary. Any question, dispute or difference arising in connection with the interpretation of this Scheme shall be determined by the Minister whose decision shall be final.

SCHEDULE.

Institutions for the Blind Approved by the Minister	Class of Blind Persons Received
1. St. Mary's Institution for Female Blind, Merrion, County Dublin	Females, also boys up to 7 years of age
2. St. Joseph's Asylum for Male Blind, Drumcondra, Dublin	Males
3. Richmond National Institution for Industrious Blind, 41, Upper O'Connell Street, Dublin	Males
4. Cork County and City Asylum for the Blind, In- firmmary Road, Cork	Males and Females

The number of persons receiving weekly allowances in their own homes from the Corporation during the year was 235, and the disbursements under the heading amounted to £4,282 4s. 6d. 26 applications were received for allowances. Other disbursements amounted to £82 12s. 0d. (examinations, grant to National Council and other expenses). In addition to the above-mentioned 25 cases maintained in Institutions by direct grants from the Corporation, viz. :—Cork Blind Asylum (5 males and 6 females) ; St. Mary's, Merrion (13 females) ; and Richmond National Institution (1 male). The total cost of the maintenance amounting to £520 6s. 0d.

The following note is contributed by the Hon. Secretary of the local branch of the National Council for the Blind of Ireland.

Home Teaching for the Blind.

Under the National Council for the Blind, this very essential service has been inaugurated in Cork City, to which the Corporation has granted a small annual contribution towards the expenses incurred by employing trained and qualified Home Visitors and Teachers.

The work of the Home Visitor is varied and broad, embracing social as well as mental instruction. She must help the blind to become active members in their homes, teach them to read embossed type, various handicrafts, such as knitting and rugmaking, and to bring an interest and hope into their otherwise hopeless lives.

The Home Visitor can help to prevent blindness in children, who often, through parental ignorance and negligence, or want of interest, lose their sight, which under proper care and supervision can be cured by seeing that they are provided with glasses where necessary and sent for treatment. She also gives her assistance and advice over pension applications, appeals and better accommodation.

Wireless sets are distributed on loan where most required, entertainments organised and free seats at musical shows secured.

Voluntary visitors also give their services to read and spend some time talking to the lonely blind, who greatly appreciate these visits.

Classes are held weekly for instruction in basket making, chair-caning and other forms of handicraft. The finished articles are presented for sale only if up to standard—no inferior goods labelled “ Made by the Blind ” are passed for sale. Efficiency is the definite aim.

The Home Teacher becomes a real friend of the Blind, who turn to her in all their difficulties, knowing that they will obtain help and encouragement to become as useful and important as their sighted brothers and sisters.

Suitable cases are urged to enter institutions for the blind and arrangements made for this purpose.

The Home Teacher has office hours daily where any blind or defective sighted person can get in touch with her and make enquiries. Over the Home Visitor is an Executive Council who meet monthly, receive the reports of the Home Visitor, deal with various cases, arrange the financial side of the work and follow closely and with interest the progress which is being made.

The following is a resume of the work done by the Home Visitors of the National Council for the Blind.

Number of Cases on Register on 31st December	...	...	353
Visits paid to the Blind	...	...	3,362
Visits paid on behalf of the Blind	...	...	289
Interviews at the Office, City Hall	...	...	1,135
Number of Braille Readers	...	...	21
Number of Moon Readers	...	...	3
Number attending Men's Handicraft Class	...	...	7
Number attending Women's Handicraft Class	...	...	11
Number of Home Workers whose work is of saleable standard	...	...	33
Number sent to Convalescent Home	...	...	6
Number helped to obtain spectacles and artificial eyes	...	...	7
Number given Fuel and Christmas Gifts	...	...	142
Number given help over Dentures	...	...	5
Number given Nourishment and Relief	...	...	57
Number given Wireless Sets on Loan	...	...	108

Appendix III.

Physical Features of the Area

The City of Cork is situated on the river Lee, fifteen miles from its mouth in Cork Harbour. On the north bank of the river there is steep rising ground almost prohibiting building development, save in the form of hillside roads and open building of large houses, with the exception of the marked break of the Blackpool valley, very full use of which has been made. Next comes the flat island comprising the centre of the City. This island is almost entirely artificial, and consists of six feet of filled-in material, with ten feet of slob below that and then gravel overlying old red sandstone. Southwards is a gently undulating tract of land about one and a half miles wide enclosed by a range of hills. There is a considerable amount of land liable to flood in the Lee Valley, west of the city, towards Carrigrohane, and the flatness of the islands on which the city is built and the height to which unusual tides ascend being nearly to the crown of the arches of the old bridges, render certain portions of the city itself also liable to flooding.

The geological formation of the city region is simple and clearly marked in its effect on the landscape. There are only two systems visible, both paleozoic rocks, the carboniferous limestone and the older underlying Devonian, representing the old red sandstone. Each of these formations is in two series; the carboniferous in a crystalline limestone and in a dark shale (with some 10 feet slate); The Devonian in the upper old red sandstone (yellowish and reddish) and in the lower, old red sandstone (red and purple). The characteristic aspect of the countryside has been caused by the crinkling of these strata into regular parallel folds. Further the limestone which should have formed the ridge of the anticlines has been denuded or dissolved away, so that the highest ground consists of old red sandstone, and even the lower series of this; the hollow folds, floored by limestone, have been subsequently protected from further denudation by a covering of boulder clay. In this immediate region there are thus three old red sandstone ridges and two limestone valleys, in the northern of which the city stands under the brow of the northern sandstone ridge. If this sandstone ridge had possessed its original limestone capping, it would probably have been at least 2,000 feet high.

INDEX

	Page		Page
Barometer ...	113	Maternal Mortality ...	73
Births ...	4	Midwives ...	75
Blind, Welfare of ...	117	Milk ...	78 <i>et seq.</i>
		Milk (Tubercle Bacilli in) ...	80
Cancer ...	9, 10	Meat Inspection ...	85
Cardiac Disease ...	9		
Cerebro-spinal fever ...	33	Neo-natal Mortality ...	59, 60, 62
Closing Orders ...	105	Notification of Births ...	4, 72
Deaths ...	5 <i>et seq.</i>	Physical Features ...	121
Deaths, Causes of ...	8	Population ...	1
Death Rates ...	7	Port Sanitation ...	106
Diarrhoea, Epidemic ...	19		
Diphtheria ...	14	Rainfall ...	112, 113b
Diphtheria Immunisation ...	17		
		Sanitary Inspections ...	101
Enteric Fever ...	19	Scabies ...	26
		Slaughterhouses ...	86, 101
Food and Drugs Acts ...	89	Shops ...	102
		Sunshine ...	113
Geological Features ...	121		
		Temperature ...	113
Housing ...	103	Tuberculosis ...	34 <i>et seq.</i>
		Typhus ...	25
Infant Mortality ...	57 <i>et seq.</i> 12	Vaccination ...	31
Infectious Disease ...	13 <i>et seq.</i>	Veterinary Dept. ...	78
		Venereal Disease ...	114
		Water Supply ...	97

